RAILWAY NATIONALIZATION IN CANADA

The Problem of The Canadian National Railways

BY

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FOREWORD

This study is the fifth of a series being published under the auspices of the International Finance Section of the Department of Economics and Social Institutions in Princeton University. The Section was established as a memorial to the late James Theodore Walker, Princeton 1927, out of funds largely provided by members of Mr. Walker's family. The function of this Section is research, advanced teaching, and public service in the field of international finance.

In view of the importance of the railway problem, both in Canada and in the United States, this impartial study of the development and operations of the Canadian National Railway System is of timely interest. It presents an analysis of the financial and operating record of the government railway system in comparison with its private competitor, the Canadian Pacific Railway System, and an appraisal of the problems which have arisen from the competition of government with private enterprise. The experiment in railway nationalization in Canada is shown to have resulted in a heavy financial drain upon the Dominion Treasury. At the same time, the uneconomic nature of the competition between the two railways has weakened the financial position of the Canadian Pacific. The solution of the problem, in the author's opinion, is a cessation of competitive railway operation in Canada, under a plan which provides for the unified management of the two railways under private administration, but with adequate regulation.

E. W. KEMMERER.

PREFACE

For several years the Dominion of Canada has been faced with a railway problem of serious proportions. Its principal phases are the over-development of railway lines and facilities far beyond the immediate needs of the country, the heavy financial drain upon the federal treasury incident to financing the annual requirements of the Canadian National Railways, and the weakened financial condition of the Canadian Pacific Railway System resulting from the depression and the acute railway rivalry of the recent past.

These two great railway systems own and operate about ninety-three per cent of the railway lines of the country, as well as a considerable mileage in the United States. The Canadian Pacific has earned for itself a well-deserved reputation for efficient operation and good service. Throughout its history, up to 1932, it paid liberal dividends on its capital stock. With its ocean liners, its coastal vessels, and its seventeen thousand miles of railway, it claims—not without justice—to be one of the great transportation systems of the world. The Canadian National is an even larger system, operating nearly 24,000 miles of line. It is a consolidation, for operating purposes, of the once privately-owned Canadian Northern, Grand Trunk Pacific and Grand Trunk Railway systems together with the Canadian Government Railways, consisting of the Intercolonial and the National Transcontinental.

The creation of the Canadian National Railways marked the beginning of an experiment that was more or less unique in railway history. To be sure, private and nationalized railways exist together in other countries. The distinctive feature of the Canadian situation, however, is the fact that the two railway systems parallel each other from coast to coast, and operate in active competition for traffic at every important center of business. Government ownership of such an extensive

railway enterprise as the Canadian National, operated in active competition with the Canadian Pacific, has created two different types of problems. There are the problems accompanying the administration of a government-owned system of railways in a democratic country, and the problems arising from the relatively uncontrolled competition of two large commercial railway systems, representing widely different principles of ownership.

In a general way the subject matter of this book may be divided into three parts. The first tells the story of the nationalization of railways in Canada, the second analyzes the operating results of the national railway system and its private competitor, and the third discusses the outstanding problems that have developed in the course of the past fifteen years and the possible remedies for them. In developing the subject, I have not attempted to draw any general conclusions in regard to the relative superiority of private or government ownership of railways on the basis of the Canadian experience. Yet much has been learned from the Canadian experiment, which has a direct bearing upon future railway policy in Canada.

Analysis of the operations of the Canadian National fully reflects the difficulties of securing an economical administration of a complex commercial enterprise under government ownership in a democratic country. To be sure, the management of the Canadian National deserves credit for its success in creating a smoothly functioning railway system from a group of disjointed properties. But the huge cost incurred in the process of developing a standard of service comparable to that of the Canadian Pacific has so increased the fixed charges of the system, that it threatens to be a permanent drain on the country's finances. The proposed solution of the railway problem, viz., unified management of the two railways under private administration, is designed to prevent a recurrence of the unsound rivalry which characterized the period 1923-1931, to achieve a more economical operation of the properties than is possible under separate administrations, and thereby to diminish greatly the deficits of the Canadian National.

I wish to acknowledge my indebtedness to the International Finance Section of Princeton University under the direction of Professor Edwin Walter Kemmerer, for financial assistance in the preparation and publication of the book. Under a grant from the Section, I spent the summer of 1932 in Montreal collecting material for the study. During that period and subsequently, I received generous co-operation from officers of the Canadian National and the Canadian Pacific, for which I am deeply grateful. Since part of the subject matter of the book is of a controversial nature, I have preferred to make general rather than specific acknowledgment of this assistance. I also wish to record my obligation to Professor Frank Haigh Dixon of Princeton University, who has ever been ready to offer encouragement, advice and criticism. Miss Mabel S. Lewis, research assistant in the International Finance Section, helped with the calculations, assisted in editing the manuscript for publication, and prepared the index.

L. T. F.

Princeton, N.J.
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CHAPTER I

A BRIEF HISTORY OF THE CANADIAN NATIONAL RAILWAY SYSTEM

THE direct cause of the burdensome railway situation in Canada is the over-investment in railway facilities resulting originally from unwise methods of government aid. The indirect cause was the World War which brought to a close a decade of remarkable expansion of Canadian industry and trade. The period from 1903 to 1914 in Canada was unusually prosperous. Population, due to a large influx of immigrants, increased rapidly and a spirit of unbounded optimism prevailed throughout the country. Under these conditions there was a period of intense railway construction actively sponsored by a lavish policy of government aid.[1] When the War started, two new transcontinental railways, the Grand Trunk Pacific-National Transcontinental Railway and the Canadian Northern system, were approaching completion. As a result of the War and the inevitable collapse of the period of industrial expansion, the new railways found themselves in serious financial difficulties. Under these circumstances and in view of the heavy responsibility of the Dominion Government with respect to these enterprises, there seemed nothing for the Government to do but to take them over and operate them along with the existing Canadian Government Railways.[2] To round out the system, the Grand Trunk Railway was also absorbed and after a program of co-ordina-

[1] In the fifteen-year period from 1900 to 1915, Canadian railway mileage doubled, increasing from 17,657 to 34,882 miles of line.—*Canada Year Book,* 1926, p. 528.

[2] The view that there was no other practical alternative is widely held in Canada. Yet the Government did have the alternative of reorganizing the lines, under private control. If this course had been followed many millions of dollars would have been saved the people of Canada. Before government ownership or acquisition, aids and

tion, these various properties emerged as the Canadian National Railways. There follows a brief description of the properties which comprise this system.

At the outset it may be well to distinguish between the terms "Canadian National Railways" and "Canadian National Railway Company." Canadian National Railways is an authorized collective name given to the various properties that have been consolidated for purposes of management and operation into a single system. While in form there is a large number of corporate entities, the operations of the system are carried on in a unified manner under the name Canadian National Railways, and the results of operation of the system as a whole are presented in a consolidated annual report and financial statement. The system includes, in addition to the directly-owned Canadian Government Railways, 149 corporate entities which own railway lines, trackage rights and other facilities, both in Canada and the United States. The Canadian National Railway Company is an owning and managing corporation which is the successor in corporate

guarantees had been extended by the Dominion Government to component parts of the present Canadian National System as follows:—

Cash Aid	
Canadian Northern	$61,650,261
Grand Trunk	30,315,957
Grand Trunk Pacific	79,854,134
Other Subsidiaries	4,112,314
	$175,932,666
Guarantees	
Canadian Northern	$71,669,914
Grand Trunk Pacific	43,432,848
	$115,102,762
Total Aid	$291,035,428

Thus at 4½ per cent, the total annual interest, on cash advances and guarantees by Dominion Government to aid these railways, would have amounted to slightly more than $13,000,000. This does not include charges for the Canadian Government Railways proper. It is important to bear these figures in mind in contrast to the huge outlay of government funds to meet deficits of the Canadian National after government acquisition of the properties.

identity to the former Grand Trunk Railway Company of Canada. The other chief components of the system—the Canadian Northern Railway Company, the Grand Trunk Pacific Railway Company, their subsidiaries and the subsidiaries of the Canadian National Railway Company—have directorates either identical with that of the Canadian National Railway Company or directorates appointed by that group of directors. Under the terms of the Canadian National Railway Act, the directors of the Company were originally appointed by the Governor-in-Council to hold office from one annual meeting to another, or until their successors were appointed, unless removed by the Governor-in-Council for cause. However, this attempt to follow the procedure of private corporations proved unsatisfactory, and legislation was passed in 1933 abolishing the existing large directorate and replacing it with a board of three trustees. The chairman of the board is now appointed for a five-year term on full-time duty. The term of office of the other trustees is for less than five years on their initial appointment, although each subsequent appointment is to be for five years. Another necessary change gave the trustees the power to appoint and remove the President (chief operating official) of the system and made him responsible only to the trustees.

The previously existing systems which now comprise the Canadian National are:

The Canadian Government Railways.
The Grand Trunk Railway System.
The Grand Trunk Pacific Railway.
The Canadian Northern Railway System.

Part of the Canadian Government Railways dates back to Confederation, when the Dominion Government undertook the construction of the Intercolonial Railway to provide a transportation link between the Maritime Provinces and Lower Canada. The obligation to build the Intercolonial was written into the Constitution of Canada, the British North America Act, as an essential inducement to secure the assent

of Nova Scotia and New Brunswick to enter Confederation.[3] For strategic and military reasons the line was built well away from the international boundary, following a much longer route than would have been chosen on the basis of commercial considerations. Construction was completed from Halifax to Rivière du Loup and the line was opened to traffic on July 1, 1876. Three years later the Intercolonial was extended to Levis, opposite Quebec City, through the purchase of a line owned by the Grand Trunk Railway, and by 1898 it reached Montreal. Throughout its history, it was operated by the Dominion Government with no attempt to meet other than operating expenses, for it was part of the understanding that railway rates would be low so as to offset, in part, the unfavorable location of the Maritime Provinces in relation to the rest of Canada.

In the course of years many short lines connecting with the Intercolonial were built by private interests. They came almost to be regarded as branch lines of the Intercolonial, but most of these found it hard to make both ends meet. Consequently, in the interest of better service to the communities they served, the Government started to acquire them and by 1918 had taken over five hundred miles of these lines, all in New Brunswick.[4]

Prior to the formation of the Canadian National Railways, the Intercolonial was operated by the Dominion Government, as a direct responsibility of the Minister of Railways and Canals. All revenues were taken into the consolidated revenue fund of Canada and all expenses were paid from this fund. On November 20, 1918, the Intercolonial Railway was entrusted for the purposes of operation to the Board of Directors of the Canadian Northern Railway Company, stock ownership of which had recently been acquired by the Dominion Government. The mileage operated by the Intercolonial Railway at that time was as follows:[5]

[3]Skelton, O. D., *The Railway Builders*, pp. 105-8. Also see the Preamble to the Maritime Freight Rates Act, 1927 (17 George V, c. 44) and the Report of the Royal Commission on Maritime Claims, 1926.

[4]Department of Railways and Canals, Canada, *Annual Reports*.

[5]*Ibid.*

	Miles
Intercolonial Railway proper	1,518.0
Prince Edward Island Railway	276.3
International of New Brunswick	105.1
Elgin and Havelock	26.1
Moncton and Buctouche	29.9
Salisbury and Alveston	24.8
St. Martins	28.7
York and Carleton	6.3
St. John and Quebec Railway	172.1
Total	2,187.3

The remainder of the Canadian Government Railways consisted of the National Transcontinental Railway, which was completed in 1915 from Moncton, New Brunswick, to Winnipeg, Manitoba, a distance of 1,800 miles. This line was built by the Dominion Government for the purpose of providing a second transcontinental railway, which was to have been operated by the Grand Trunk Pacific under lease from the Government at a rental based on the cost of construction. When the National Transcontinental was completed, the Grand Trunk Pacific, now in financial difficulties, was unwilling to carry out its contract on the ground of excessive construction costs. Consequently, the Government operated the line from the date of completion as part of the Canadian Government Railways.

The Grand Trunk Railway System was an outgrowth of the earliest railway development in Canada. The history of the company extends back to 1853 and its lines comprised the first which were constructed in Canada. This company, controlled by English capital, provided a through route from Chicago to the Atlantic coast at Portland, to the New England States through the Central Vermont Railway, a controlled subsidiary, and to New York through connecting lines at the Niagara Peninsula. At the time when British Columbia joined Confederation, the Grand Trunk Railway System was given an opportunity of constructing a railway across Canada, but it declined the opportunity. The company had a varied career, mostly unprofitable. It experienced a rejuvenation under the management of Charles M. Hays, who was able to influence British capitalists to put large additional amounts of money

into the reconstruction of the line and the development of a new transcontinental route to be known as the Grand Trunk Pacific Railway.[6]

The Grand Trunk Pacific Railway, with subsidiary branch line companies, was constructed to furnish an additional transcontinental route extending from the Atlantic to the Pacific, competing with the Canadian Pacific Railway on through business, and developing new territory in western Canada. The Dominion and Provincial Governments favored the project and aided it by granting Dominion and Provincial guarantees of securities, and the Dominion Government undertook to construct the portion of the route from Winnipeg to Moncton, New Brunswick, on the understanding that the Grand Trunk Pacific would lease the property for operation. The construction of this new transcontinental route was decidedly unfortunate from the standpoint of the shareholders of the Grand Trunk Railway. It entailed over-expansion of the credit of the Grand Trunk System, which was the direct cause of the financial disaster that overtook the parent company.

The Canadian Northern Railway System was the outcome of plans of Mackenzie and Mann, "two men whose amazing activities are to be found written large in the railway history of Canada, and whose interests in public utility operations extended to Spain, Mexico, Brazil, Venezuela and Cuba."[7] Starting with the development of a small "granger" road competing with the Canadian Pacific Railway in western Canada, Mackenzie and Mann gradually built up an extensive system of lines in the northwestern portion of Canada with an outlet to the Great Lakes at Port Arthur. With the maturing of the transcontinental plans of the Grand Trunk Pacific, Mackenzie and Mann decided that they must do likewise or be outrivaled by the Grand Trunk Pacific and the Canadian Pacific. They therefore embarked on an ambitious construction program extending from Quebec and Montreal in the East to Vancouver in the West. As in the case of the Grand Trunk

[6]From a *Brief History of the Canadian National Railways,* prepared by the company for the Royal Commission on Transportation in 1931.

[7]*Ibid.*

Pacific, the Dominion and Provincial Governments aided the construction by guarantees of securities. Even prior to the outbreak of the Great War, it became evident that over-expansion in railway building had taken place. The stream of immigration of settlers and of capital dwindled and the tremendous boom in western Canada collapsed.

The War found Canada with an over-expanded railway development involving hundreds of millions of dollars. So far as the lines in financial difficulties were concerned, this investment was represented almost entirely by interest-bearing securities. The burden of interest payments was altogether disproportionate to the productive capacity of the new lines. Some remedy was imperative. The Government of the day in 1916 appointed a commission to enquire into the railway situation, composed of Mr. W. M. Acworth, an English economist, Sir Henry L. Drayton, Chairman of the Board of Railway Commissioners, and Mr. A. H. Smith, President of the New York Central. Mr. Acworth and Sir Henry Drayton rendered a majority report which recommended substantially the course which the Government later followed, although unfortunately there were important differences in detail as regards control and management. Mr. Smith submitted a minority report favoring the principle of private ownership.[8]

The acquisition of the properties by the Dominion Government avoided bankruptcy and the reduction of interest-bearing securities which would have followed. The burden was thereby shifted to the people of Canada; i.e., the cost of the over-expansion was borne by the people, and not one dollar of indebtedness was defaulted. Two issues only of all the railway capital invested in Canada in this period can be said to have in any degree sustained a loss. The Grand Trunk Pacific 4% perpetual debenture stock was in reality an income bond and, as such, did not receive dividends for a number of years.[9] A similar situation existed in the case of the Canadian Northern 5% income charge convertible debenture stock,

[8]The two reports are described in Ch. IV.
[9]This issue has since been refunded to the satisfaction of the holders.

which did not receive a dividend subsequent to 1914.[10] Such a situation is unique in the history of railway development, and is one which should be kept in mind when viewing the financial results of the Canadian National System. If the Government of Canada had not come to the rescue, several hundred million dollars of non-guaranteed railway securities would have been jeopardized.

When the Government, in 1918, embarked on a program of railway nationalization on a large scale, it had to face the problem of developing an appropriate plan for administering its extensive railway properties. Its long experience in operating the Intercolonial Railway could be of little assistance in solving the problems of administering a large, commercial railway enterprise. The ideal was to secure an efficient administration of the properties unhampered by the forces of political influence, and at the same time to endeavor to provide fair but effective competition with the Canadian Pacific.

From the outset the policy decided upon was that of placing the National Railways under the control of a board of directors to be operated substantially as a private corporation. The operating head of the Canadian Northern Railway System, Mr. D. B. Hanna, was chosen by the Government to be the first President of the Canadian National Railways. The Union Government of the day, headed by Sir Robert Borden, also appointed a small board of directors, the membership of which was generally conceded to be of high calibre. This board had the difficult task of operating the Canadian National during the trying years from 1918 to 1922 when costs of operation were rising rapidly. It also had the problem of effectuating railway co-ordination and reorganization on three separate occasions.[11] The first was the reorganization that took place as a result of the combination for operating purposes of the Canadian Government Railways and the Canadian Northern System in the closing months of 1918. The second took place in September 1920, when the Grand Trunk Pacific lines were combined with the Canadian Na-

[10]This issue was retired in 1928.
[11]Canadian National Railways, *Annual Reports*, 1920-1922.

tional Railways. This co-ordination affected western lines only but it involved a thoroughgoing reorganization of every phase of railway operation. Duplicate offices were abolished, train service rearranged to secure better routing, certain stations, freight sheds and round houses were closed and staffs were combined. The third measure of co-ordination of the Hanna regime involved co-operative arrangements between the Grand Trunk Railway System and the Canadian National, first instituted in May 1920. These were necessarily less complete in character than the previous co-ordinations, since the Government did not acquire full title to the stock of the Grand Trunk until a year or more later. In May 1921, pending completion of the arbitration proceedings, the Government took control of the Grand Trunk and appointed a new board of directors. During 1921 and 1922 co-ordination of the Grand Trunk and the Canadian National proceeded steadily, although handicapped by the fact that each system continued to have a separate staff and a separate board of directors.

In the fall of 1921 there was a general election, and a Liberal Government under Mr. Mackenzie King came into power. Then when the Grand Trunk Railway was acquired it was felt that in order to secure a harmonious organization for the combined railways it was necessary to have a President with no previous affiliation with either the Grand Trunk or the Canadian Northern. Consequently, in 1922 the Government dispensed with the services of Mr. Hanna and the existing boards of directors, appointed a new board of directors for the combined system and chose Sir Henry Thornton as President. The principles of administration laid down in the Drayton-Acworth report in 1917 were definitely disregarded by the Government, with the result that the Canadian National did not enjoy a sound business administration free from the influence of political considerations. The Drayton-Acworth report had recommended that the National Railways be placed under the control of a non-political board of five trustees, chosen for their ability to direct such a large business enterprise. They would retire by rotation, be eligible for reap-

pointment and their successors would be appointed by the Government on the nomination of the remaining trustees. In that regard the Commissioners said: "We lay stress on the importance of the Board being non-political, permanent and self-perpetuating."[12]

Several years of prosperity after 1923 blinded almost everyone to the fundamental defects in the Canadian railway set-up. During these years of prosperity, the vigorous personality of the new president of the Canadian National Railways, Sir Henry Thornton, was felt throughout the unified organization and in fact throughout the country. His energetic administration and his success in combining the personnel of the separate companies in the consolidated system won wide popular acclaim. His sympathetic attitude towards railway labor promoted a fine spirit of co-operation between management and labor. But under Sir Henry Thornton, competitive relationships between the Canadian Pacific and the Canadian National became more extreme year by year. The result was an expansion of capital by both railways far beyond the point of economic reason. Then came the depression and, in 1930, a general election which brought a change of government and again a new board of directors for the Canadian National. Gross earnings of both railways fell off rapidly, the income deficits of the Canadian National increased and there was concern as to the ability of the Canadian Pacific to continue to earn its regular dividend and interest payments. The great popularity hitherto enjoyed by Sir Henry Thornton began to wane; emphasis was shifted from his achievement in making the Canadian National a real and worthy competitor of the Canadian Pacific, to the greatly increased burden of interest payments on the System as a result of his excessive optimism. In November 1931 the Government appointed a Royal Commission to investigate the railway situation. Following its recommendations, the Government passed the Canadian National-Canadian Pacific Railway Act in 1933 which directed the two railways to enter upon co-operative agreements in the interests of economy, and which

[12]Railway Inquiry Commission, *Report,* 1917, p.lxxxvii.

made provision for compulsory arbitration to settle disputes arising out of co-operative measures. While there is no doubt that the new policy constitutes an improvement over the unrestrained rivalry of recent years, it falls far short of being an adequate solution of the Canadian railway problem. The fact is that there is not enough traffic on the Canadian lines to support a competitive railway structure. Under the existing conditions unified management of the two railways offers the only practicable way of reducing costs sufficiently to secure remunerative operations, and lessen the burden of deficits of the government railway system.

CHAPTER II

THE GRAND TRUNK PACIFIC RAILWAY

FOR a proper understanding of the conditions which impelled the Canadian Government to add over twenty thousand miles of line to a small nucleus of a government system, a close study of Canadian railway affairs from the beginning of the present century is necessary. This involves an appreciation of the economic conditions which promoted the construction of the Grand Trunk Pacific-National Transcontinental from Moncton, New Brunswick, to Prince Rupert, British Columbia, and an appraisal of the policy whereby the Dominion Government not only countenanced the rival construction in the same period of a third transcontinental line, but through bond guarantees became definitely responsible for each of these projects.

At the beginning of the century Canada was served by two main railway systems (in addition to the Intercolonial). The Canadian Pacific stretched across the continent with access to all important points in the East and in the West; it controlled a considerable mileage in the United States and was in a very prosperous financial condition.[1] The Grand Trunk Railway was strongly entrenched in eastern Canada, particularly in the populous manufacturing districts of Ontario, and had important United States connections giving it access to Chicago in the West and Portland, Maine, in the East. In the West, the Canadian Northern was just getting under way. Starting as a local "granger" line in Manitoba in 1896, it grew very rapidly, and by 1903 had a total of 1,276 miles of line, mostly in Manitoba. The situation that existed at the turn of the century was aptly described in the Drayton-Acworth report:[2]

[1]For the history of the Canadian Pacific see Innis, H.A., *A History of the Canadian Pacific Railway*, London, P. S. King and Son, Ltd., 1923.

[2]Railway Inquiry Commission, *Report*, 1917, pp. xxi-xxii.

"The Canadian Pacific had the advantage of gathering its own traffic for itself and of keeping it in its own hand throughout. The other two companies were in a different position. The Canadian Northern had to depend for west-bound traffic on what the companies in the East, one of which was a rival, handed over to it. On the traffic which it collected in the West it lost the long haul to the East. It was not unnatural that the company should reach out to the East. For the same reason it was equally natural that the Grand Trunk Company should reach out to the West, and public sentiment which felt that the growth of the country justified and required more than one transcontinental line, undoubtedly sympathized with the companies' ambitions."

The first move was made in November 1902, when Mr. Hays of the Grand Trunk announced the directors' intention of extending the Grand Trunk Railway to the Pacific. It was to be a line of the highest standards, steel bridges, heavy rails, and low grades, extending from North Bay through Ontario westward to a terminus on the Pacific at Port Simpson (Prince Rupert) or Bute Inlet. He announced also that negotiations were under way for the purchase of the Canadian Northern Railway as part of the extension.[3] Unfortunately, these plans for the purchase of the Canadian Northern failed to materialize, with the result that needless duplication of construction took place in the ensuing ten years.

Government aid had been requested for the extension and the Grand Trunk soon found that its plans did not meet with the approval of the Government.[4] Since the eastern terminus of the Grand Trunk was at Portland, the maritime interests of Canada feared that Canadian traffic from the West would be diverted through the United States to Portland at the expense of the Canadian maritime ports.[5] The Government

[3]*Commercial and Financial Chronicle,* Vol. 75, p. 1202.

[4]They asked for $6,400 and 5,000 acres of land per mile. McLean, S. J., *Inland Traffic,* p. 18. Also see Skelton, O. D., *The Railway Builders,* pp. 198-219.

[5]It may be noted that, in its original proposal, the Grand Trunk expressed a willingness to enter into an arrangement with the Government for an interchange of traffic or other satisfactory agreement with the Intercolonial Railway at Montreal, so as to provide an all-Canadian route to and from the Atlantic seaboard. Railway Inquiry Commission, *Report,* 1917, p. xxvii.

sympathized with this desire to preserve for Canadian ports the increasing traffic from the western provinces and in addition wanted the new transcontinental to "open to colonization the rich hinterland of Ontario, Quebec and New Brunswick."[6] Consequently, Sir Wilfrid Laurier, the Prime Minister, proposed the construction of a line 3,550 miles long, beginning at Moncton, "a neutral point between the politically inconvenient rivalries of St. John and Halifax," crossing New Brunswick northwesterly to Quebec City; then westward, far to the north of existing settlement, to Winnipeg and from there to the Pacific Coast by the route proposed by the Grand Trunk. The Grand Trunk readily accepted the Government's proposal in order to receive the authority and the assistance required to construct its western extension.[7] Fifteen years later when it had become financially embarrassed as a result of its relationship to the Grand Trunk Pacific, the Grand Trunk blamed much of its troubles on the Government for requiring it to modify its plans for a transcontinental connection.

Since the new project was beyond the power of the Grand Trunk to finance, it was arranged to divide the road into two sections. The eastern section from Moncton to Winnipeg (1,800 miles) was to be built and owned by the Government and leased to the Grand Trunk Pacific, which, with government aid, was to construct and own the western division.

There was much objection to the plan, in particular that of the Honorable R. L. Borden, Leader of the Opposition.[8] There is little doubt that his proposal would have saved the country the loss of many millions of dollars, inasmuch as it would have prevented the wasteful duplication of lines that resulted from the acceptance of the Government's plan. He favored the extension of the Intercolonial to Georgian Bay and the purchase by the Government of the line of the Canadian Pacific Railway north of the Great Lakes. All the rail-

[6]*Canada and the Grand Trunk,* Department of Railways and Canals, 1923, p. 16.

[7]For a well-documented history of the Grand Trunk and its subsidiary, the Grand Trunk Pacific, see Lovett, H. A., *Canada and the Grand Trunk,* 1829-1924.

[8]House of Commons Debates, Canada, 1903, pp. 12627-35. Also *Commercial and Financial Chronicle,* Vol. 77, p. 401.

ways were to have running rights over the latter stretch of line as far as Winnipeg. He favored the granting of government aid to the Grand Trunk Railway to enable it to build from Winnipeg to Edmonton. From that point there was to be only one road to the Pacific Coast.[8a]

In accordance with the Government's plan the Grand Trunk Pacific Railway was incorporated[9] and on July 29, 1903, an agreement was entered into with the Government, under which the Government agreed to build the eastern section from Moncton to Winnipeg, as described, and the Grand Trunk Pacific, the western section from Winnipeg to the Pacific at or near Port Simpson. The Government undertook to guarantee payment of principal and interest of an issue of bonds to finance the western section limited to a principal amount equal to 75 per cent of the cost of construction of the mountain section but not to exceed $13,000 per mile on the prairie section. The Government also agreed to pay interest on the mountain section bonds for the first seven years after the line was declared officially open, and for three additional years if the company were unable to pay it, and to grant the company forty years for repayment at three per cent interest. The date set for completion was December 1, 1911. On the other hand, the Grand Trunk Pacific contracted to lease the eastern section on completion and operate it for a period of fifty years, the first seven of which would be rent free, after which the rental was to be at the rate of three per cent per annum upon the cost of construction. In addition, the com-

[8a]The Canadian Pacific Railway also put forward an alternative plan, as was pointed out by Mr. E. W. Beatty in a speech before the Winnipeg Canadian Club on February 8th, 1933, as follows:

"The Canadian Pacific raised its voice in protest against the contract which provided for the construction of the Grand Trunk Pacific-Transcontinental System. It advised a running rights agreement with the Canadian Pacific between North Bay and the head of Lake Superior, and the acquisition by the Grand Trunk of the Canadian Northern Lines in the west.

"Before the building of the Canadian Northern Railway between Sudbury and Port Arthur was projected, it offered, and the Canadian Northern accepted, satisfactory arrangements for the handling of Canadian Northern traffic between the East and West. If that arrangement had been maintained, it would probably have saved the Canadian Northern from disaster."

[9]Statutes of Canada, 3 Edward VII, c. 122. An Act to Incorporate the Grand Trunk Pacific Railway.

pany agreed to equip both divisions with modern and complete rolling stock.[10]

Section 42 of the agreement provided for the routing of freight through Canadian ports: "It is hereby declared and agreed between the parties of the agreement that the aid herein provided for is granted by the Government of Canada for the express purpose of encouraging the development of Canadian trade and the transportation of goods through Canadian channels. The company accepts the aid on these conditions and agrees that all freight originating on the line of the railway or its branches, not specifically routed otherwise by the shipper, shall, when destined for points in Canada, be carried entirely on Canadian territory, or between Canadian inland points, and that the through rate on export traffic from point of origin to the point of destination shall at no time be greater via Canadian ports than via United States ports, and that all such traffic not specifically routed otherwise by the shipper, shall be carried to Canadian ocean ports."

Under this agreement the work of construction on both eastern and western divisions was begun in 1905.[11] The general contract for constructing the western division was awarded to the National Construction Company of Montreal, a subsidiary of the Grand Trunk Railway.[12] Contracts for the eastern division were awarded at the same time and construction went ahead rapidly. By 1908 a stretch of line 666 miles long, westward from Winnipeg, was completed and in operation on construction account.[13] The last section to be built was the mountain division, which was finally completed on April 7, 1914. Track laying between Moncton and Winnipeg was completed in November 1913 (with the exception of

[10]Statutes of Canada, 3 Edward VII, c. 71. An Act respecting the Construction of the National Transcontinental Railway. Schedule attached includes the agreement with the Grand Trunk Pacific Railway Company. See also modified agreement Feb. 18, 1904, ratified by statute, 4 Edward VII, c. 24. The new agreement provided for a guarantee of second mortgage bonds of the Grand Trunk Pacific by the Grand Trunk Railway Company and increased the bond guarantees of the Government on the mountain division. The statement of aid in the text follows the amended agreement.

[11]The Grand Trunk Pacific, *Canada's National Transcontinental Railway,* Tenth Edition, January 1912. An official publication of the company.

[12]*Commercial and Financial Chronicle,* Vol. 81, p. 777.

[13]*Commercial and Financial Chronicle,* Vol. 87, p. 873.

the Quebec Bridge), and during that year 285 miles (from Moncton) were under operation by the Intercolonial. In the following year this had increased to 455 miles and on May 1, 1915, the remainder of the eastern division was put into operation as part of the Canadian Government Railways.[14] This was due to the unwillingness of the Grand Trunk Pacific to lease it for reasons to be discussed shortly.

The Grand Trunk Pacific exercised its right to build branch lines and for that purpose incorporated the Grand Trunk Pacific Branch Lines Company. In Alberta and Saskatchewan nearly 1,000 miles of branch lines were constructed, with the aid of provincial government guarantees. In British Columbia an independent road, the Vancouver, Pacific and Great Eastern (now owned by the Provincial Government), promised when completed to give the Grand Trunk Pacific entrance, by traffic agreement, into Vancouver. In Ontario, the company built a branch line from Fort William to the National Transcontinental just west of Superior Junction, a distance of 192 miles. Connection was made with the Grand Trunk Railway at North Bay, by that company's agreement with the Temiskaming and Northern Ontario, providing for running rights for twenty-five years over its line between Cochrane, on the National Transcontinental, and North Bay, a distance of 252 miles.[15]

FINANCIAL ASPECT OF THE GRAND TRUNK PACIFIC

The plan for financing the Grand Trunk Pacific involved a very large government guarantee of securities. The company's main line was divided into two sections: the prairie section, 915 miles from Winnipeg via Edmonton to Wolf Creek, Alberta, a point 120 miles west of Edmonton, and the main section from that point to Prince Rupert (830 miles). By the 1904 agreement, the Government was to guarantee the payment of interest and principal on first mortgage bonds to be issued by the company to an amount sufficient to produce

[14]Department of Railways and Canals, *Annual Report,* March 31, 1919, p. xxi. Sessional Paper No. 20, 1920.

[15]*Commercial and Financial Chronicle,* Vol. 94, p. 1246.

three-quarters of the cost of construction of each section, but not to exceeed $13,000 per mile in the prairie section. The remainder of the cost of both sections was to be met by the issue of four per cent second mortgage bonds of the Grand Trunk Pacific guaranteed by the Grand Trunk. Under this plan, first mortgage bonds, bearing interest at three per cent, were issued to the amount of $68,133,333.[16] When the Grand Trunk Pacific offered these bonds for sale, it failed to realize par for them, whereupon the Grand Trunk Pacific contended that the agreement of the Government to guarantee principal and interest was designed not only to protect the purchasers but also to yield to the railway the par value of the bonds. It was an unusual interpretation and the Government allowed the point to be settled by "friendly suit." As a result the Government was obliged to pay out about five million dollars "to implement to par bonds already disposed of and itself purchased the balance of the issue, amounting to $33,-093,333."[17]

There were also issued $20,169,000 of four per cent second mortgage bonds and $7,533,000 first mortgage four per cent bonds (Lake Superior Branch) guaranteed by the Grand Trunk Railway. The company received $93,774,916 from the sale of these various issues of bonds, but it proved entirely inadequate to complete the system. Accordingly, by an Act of 1906, as amended in 1913, the company was authorized to issue perpetual debenture stock.[18] These debentures were guaranteed with respect to interest by the Grand Trunk and various amounts were sold from time to time so that on December 31, 1918, $34,879,253 of them were outstanding in the hands of investors. By an Act of 1909, the Government lent the company $10,000,000 at four per cent interest, repayable in ten years, the loan being guaranteed by the Grand Trunk.[19] A similar loan for $15,000,000, secured by perpetual debenture stock, was made in 1913. In June 1914, the

[16] *Correspondence Regarding Grand Trunk Railway Acquisition and Memoranda Respecting the same.* Sessional Paper No. 90, 1919, p. 42.
[17] Canada and the Grand Trunk, *op. cit.* p. 12.
[18] 6 Edward VII, c. 100 and 3-4 George V, c. 123.
[19] 8-9 Edward VII, c. 19.

Government guaranteed a $16,000,000 issue of four per cent bonds maturing in 1962 and secured by a first mortgage on the prairie and mountain divisions. Of this issue $8,440,848 were sold to investors and the remainder pledged to the Government as security for a loan of $6,000,000 at five per cent interest. The company had also issued seven year five per cent collateral notes guaranteed by the Grand Trunk amounting to $9,720,000. Repeatedly the company was obliged to turn to the Government for further assistance to pay deficits on operation, interest on securities and for the purchase of rolling stock. Loans for these purposes amounted to $7,081,783, $5,038,054 and $7,471,400 in the years 1916, 1917 and 1918, respectively. In addition, up to March 31, 1919, interest payments were owing to the Government by the Grand Trunk Pacific to the amount of $6,341,379.[20]

On December 31, 1918, the outstanding securities of the Grand Trunk Pacific Branch Lines Company included first mortgage bonds for $13,196,844 guaranteed by the Province of Saskatchewan and $3,589,596 guaranteed by the Province of Alberta.[21] In addition the Grand Trunk Company had advanced to the several companies comprising the Grand Trunk Pacific system the following sums:

(a) Grand Trunk Pacific Railway Company	$ 801,783
(b) Grand Trunk Pacific Branch Lines Company	13,369,538
(c) Grand Trunk Pacific Saskatchewan Ry. Co.	214,500
(d) Grand Trunk Pacific Development Co. Ltd.	11,793,907
	$26,179,728

In return for these advances it held the companies' notes to the amount of $24,334,017, and the outstanding common stock of the Grand Trunk Pacific amounting to $25,000,000.[22]

The accompanying table shows the funded debt of the

[20]Department of Railways and Canals, *Annual Report,* March 31, 1919, pp. xxiv to xxvii. Sessional Paper No. 20, 1920.

[21]*Correspondence Regarding Grand Trunk Railway Acquisition,* p.43.

[22]Railway Inquiry Commission, *Report,* p. xxv. At the time of the acquisition of the Grand Trunk by the Government it developed that the Grand Trunk Pacific System still owed the Grand Trunk about $22,000,000.

Grand Trunk Pacific System, on December 31, 1918, just before it went into receivership. It includes the demand loans from the Dominion Government but excludes short-term notes due the parent Grand Trunk Railway. The table also indicates the aid received by the system from Dominion or Provincial Governments, and from the Grand Trunk Railway in the form of a guarantee of securities. No grants of land were made to the Grand Trunk Pacific and it received from the Dominion Government a relatively small cash subsidy amounting to $1,220,480.[23]

Grand Trunk Pacific System

Funded Debt Outstanding December 31, 1918[24]

Description of Security	*Rate %*	*Principal*	*Guaranteed by*
First Mortgage Gold Sterling Bonds 1962	3	$ 68,133,333	Dominion Government
Sterling Bonds 1962	4	8,440,848	Dominion Government
Total		$76,574,181	
First Mortgage Lake Superior Branch 1955	4	$ 7,533,000	Grand Trunk Ry.
Second Mortgage Series A and B 1955	4	20,169,000	Grand Trunk Ry.
Debenture Stock Perpetual	4	34,879,253	Grand Trunk Ry.
Seven Year Secured Notes (1921)	5	9,720,000	Grand Trunk Ry.
Total		$72,301,253	
First Mortgage Bonds (four issues)	4 and 4½	16,786,440	Alberta and Saskatchewan Governments
Dominion Govt. Loan 1909	4	10,000,000	Grand Trunk Ry.
Dominion Govt. Loan 1913	4	15,000,000	Grand Trunk Ry.
Dominion Govt. Loan 1914	5	6,000,000	No Guarantee
Dominion Govt. Loan 1916	5	7,081,783	No Guarantee
Dominion Govt. Loan 1917	6	5,038,054	No Guarantee
Dominion Govt. Loan 1918	6	7,471,400	No Guarantee
Total		$ 50,591,237	
Grand Total		$216,253,111	Annual interest $ 8,456,408

[23]Department of Railways and Canals, *Annual Report,* 1923, p. 137. There should be added to this amount the money paid to the Grand Trunk Pacific to "implement" to par the first mortgage bonds. So that the total cash subsidy given to the company was $6,263,716. (*cf.* Railway Inquiry Commission, *Report,* 1917, p. xviii).

[24]*Correspondence Regarding Grand Trunk Railway Acquisition,* p. 42.

The total outstanding debt of the system at the end of 1918 was $216,253,111, involving interest charges of $8,456,408. The Grand Trunk Pacific System owned 2,902 miles of railway so that the debt liabilities of the system amounted to $74,500 per mile. Moreover, since the common stock held by the Grand Trunk had not been paid for, it might properly be said that the entire capitalization of the property consisted of bonded debt. Considering the poor earning prospects of the road, the system was doomed to failure from the beginning on account of its great cost and heavy fixed charges.

CAUSES OF EXCESSIVE COST

It is proper at this point to inquire into the causes of the excessive cost of this railway property, which so largely duplicated existing facilities. The discussion will apply to the entire undertaking, from Prince Rupert to Moncton, New Brunswick. In connection with the eastern portion owned by the Government, it is interesting to note that the actual cost far exceeded the original estimates. The cost of constructing the 1,800 miles of railway had been estimated at $61,415,000 or $34,000 per mile, and by 1915 the expenditures had amounted to $159,881,197 or $88,500 per mile.[25] The excessive cost of the National Transcontinental was made the subject for investigation by a Royal Commission which submitted its report on February 11, 1914.[26] Its findings were (a) that the Transcontinental Railway Commission,[27] the Grand Trunk Pacific and those having charge of the construction of the railway did not consider it necessary or desirable to practise or encourage economy in the construction of the road; (b) that without including the money which was expended unnecessarily in building the railway east of the St. Lawrence River, there was an uneconomic expenditure of $40,000,000 in its construction. The main reasons for these

[25]Railway Inquiry Commission, *Report,* 1917, p. xxiii. The specifications and standards were revised after the original estimates were prepared. It should also be noted that the Grand Trunk built its own subsidiary, the Grand Trunk Pacific, to the same standards and at a cost per mile nearly as great as that of the National Transcontinental.

[26]Sessional Paper 123, 1914.

[27]This refers to a commission of four, which had been appointed to manage the construction of the road.

conclusions were (a) that the Government committed the country to the construction of the railway with grades of .4 per cent against eastbound and .6 per cent against westbound traffic, without knowing whether these grades fitted the country and with very little information as to the cost of building such a railway, (b) that the tables of figures drawn up to enable the engineers to equate the value of grades and curvature were based on the assumption that the road would at once receive the maximum traffic it was possible to carry over a single track road of low gradients. "That there was an entire lack of business along the line from Winnipeg to Quebec and from Quebec to Moncton, or that this was a trunk line with no feeders does not seem to have occurred to those who made these tables."[28] Another reason of some importance was the finding that the conditions for submitting tenders for the construction of the road were so onerous as to discourage competitive bidding.[29]

As early as 1908, those in charge of the project were informed by the chief engineer in charge of construction that the road would cost at least one hundred per cent more than the highest estimate previously given to Parliament. "With all this information before them, what did the Government, the Minister of Railways and Canals, the Grand Trunk Pacific Railway Company, the Commissioners or the chief engineer do toward reducing the cost of the railway? We do not find any instructions or recommendations from the Government or the Commissioners. . . or protest from the Grand Trunk Pacific Railway Company or its engineers for retrenchment. . . . It is fair therefore to assume that the Government and the Grand Trunk Pacific Railway Company were satisfied with this forecast of the ultimate cost of the railways."[30]

[28]Sessional Paper 123, 1914, p. 14. The volume of traffic which was assumed was actually double the existing tonnage of the transcontinental line of the Canadian Pacific Railway Company, for the year 1914.

[29]*Ibid.*, pp. 19-24. Excessive security was required to be furnished by contractors, with the result that only five contractors tendered on 806 miles of the railway, and eleven firms secured all the work. These contractors sub-let to upwards of 100 subcontractors.

[30]*Ibid.*, pp. 16-17.

The investigation committee brought to light the fact that the Grand Trunk Pacific Railway Company occupied a dual position with respect to the National Transcontinental. For it was not only the prospective lessee but it had also secured contracts to build 353 miles or one-seventh of the government line. In this connection the Commission said: "If the railway company really expected to operate this railway when completed, according to the terms and at the rental provided in its agreement with the Government, we must attribute its want of proper care to its indifference to the interests of its own shareholders, or its desire to so increase the cost of construction of the 353 miles of railway, for which it was contractor, as to reap the largest present profit possible thereon."[31]

The most important reason for the excessive cost of the Grand Trunk Pacific, likewise, was the standard of construction adopted. The basic principle of ordinary wise railway location in thin traffic territories is to provide for the construction of a line, the capital cost of which would be commensurate with the traffic expected; future improvements to be carried out as, and when, traffic made these necessary. Such a road, as a matter of fact, would have been adequate for the existing volume of traffic, and could have been improved as conditions warranted. This was the policy adopted in its early expansion by the Canadian Northern Railway, and its branch lines all over the West were built on this basis of comparatively cheap construction.[32] Instead of following this policy, the agreement providing for the construction of the Grand Trunk Pacific and the National Transcontinental adopted the other. Thus they required a standard of excellence equal to that maintained on the Grand Trunk main line between Montreal and Toronto. "Bridges were of stone and steel. Material for them had to be transported by river and by other expensive methods, so that the cost was greatly increased. The well-established and economical method of building such a road (through territory that was yet to be developed) is to

[31] *Ibid.*, p. 24.

[32] Statement of a former Minister of Railways. House of Commons Debates, Canada, May 9, 1916, Vol. IV, p. 3649.

build pile and wooden bridges, temporary structures, and use them until they cease to be safe, and then substitute more permanent material which could be transported over the lines of the railway at little cost. To secure low-grades immense trestles over ravines in the prairie provinces and elsewhere along the line have been constructed with a view to their being filled up with dirt and thus made permanent. It would have been more economical to have begun with less favorable grades and gradually better them as growth of traffic justified it."[33]

Another reason for excessive costs was the enhanced price of materials and labor, resulting partly from the rising price level during the period and partly from the competition in bidding between the Canadian Northern, the Grand Trunk Pacific and the Canadian Pacific. The President of the Grand Trunk Pacific testified to this before the Railway Inquiry Commission in February, 1917.[34] "All our estimates were made on the basis of $1.50 for labor, $1.75 to make it safe. Labor is the principal part of the construction of a railway. The result was that with the other road working right alongside of us, especially west of Edmonton, we had to pay $3.50 a day right along, and even then men would not work. If we tried to crowd them and make them work, they would simply climb over the fence, so to speak, and work for the Canadian Northern." In addition to that, all material was increased in price. The Canadian Pacific Railway was also extending its lines during the period and the combined requirements of the three railways increased the cost of material far beyond any expectations. There were also import duties that went into effect after the contract was made, such as $7.00 a ton on rails.

FINANCIAL RESULTS OF OPERATION

The financial results of the operation of the Grand Trunk Pacific are shown in the following table:[35]

[33]Department of Railways and Canals, *Annual Report,* March 31, 1921, p. 184.
[34]Railway Inquiry Commission, *Report,* 1917, p. 82.
[35]From Department of Railways and Canals, *Annual Reports.*

Grand Trunk Pacific System

Year Ending	*Net Income Deficit after Operating Expenses and Fixed Charges*
June 30, 1917	$ 5,707,581
June 30, 1918	7,389,569
Dec. 31, 1918	10,548,442
Dec. 31, 1919	15,014,164
Dec. 31, 1920	18,029,174
Dec. 31, 1921	14,283,568

The explanation of these unsatisfactory results is not hard to find. For nearly half the distance of nine hundred miles westward from Winnipeg the main line of the Grand Trunk Pacific was constructed close to and between the lines of the Canadian Northern and the Canadian Pacific Railway. For the remaining thousand miles to Prince Rupert the main line traversed a difficult country, largely mountainous, the development of which from a traffic standpoint, even today, must await settlement and business enterprise. One of the hopes of the promoters was that Prince Rupert would develop a lucrative oriental business for the system. Unfortunately, on account of financial and shipping conditions the organization of steamship lines between Prince Rupert and the Orient failed to materialize. Even though the distance from the Orient to Prince Rupert is considerably shorter than to Vancouver and Seattle, it is difficult to change existing routes of trade, and today Prince Rupert is as yet without any considerable trans-Pacific or other external trade.

When it is considered that the Grand Trunk Pacific was built for the whole distance between Winnipeg and Prince Rupert at a very high standard of construction and at enormous cost, the magnitude of the miscalculation is apparent. The branch lines in the prairie provinces were entirely inadequate as feeders to the main line, providing a striking contrast to the number and mileage of the branch lines of the Canadian Pacific and the Canadian Northern in this great traffic-producing territory, besides placing the Grand Trunk Pacific in an unfavorable competitive position. One is forced to agree with Sir Thomas White, one of the arbitrators on the

Grand Trunk Arbitration Board in 1921, who said:[36] "It would be difficult to imagine a more misconceived project than that to which the Grand Trunk committed its credit in this unfortunate enterprise."

The entire undertaking had unsatisfactory features from the beginning. In the first place, the Grand Trunk was in no condition financially to enter upon it. The parent company was very heavily capitalized, and while it had usually been able to pay its fixed charges out of earnings, the amount left for dividends had been uncertain and irregular. The dividend payments on its preference stock had been intermittent and it had never paid anything on its common stock.[37] It is true that the scheme for financing the Grand Trunk Pacific did not involve a very considerable direct commitment on the part of the Grand Trunk. However, it will be seen shortly that the plan of guaranteeing a large issue of Grand Trunk Pacific bonds was a source of embarrassment which ultimately brought ruin to the Grand Trunk.

Again, when the National Transcontinental was completed in 1915, the Grand Trunk Pacific refused to lease it in accordance with its agreement. In a letter written to the Government on April 22, 1915, the President of the Grand Trunk Pacific mentioned the following reasons for this decision.[38] Firstly, the great increase in the cost of construction of the government line. It had been estimated at $61,415,000, whereas the cost to date was $149,479,550, not including interest. In this connection it must be pointed out that the company should have been fully protected because there was a clause in the agreement whereby the specifications for the construction of the National Transcontinental were to be submitted to and approved by the Grand Trunk Pacific before the commencement of the work. In addition the work was subject to the joint supervision, inspection and acceptance of its engineer and the engineer of the Government.[39] Further-

[36]Department of Railways and Canals, *Annual Report,* 1921, Sessional Paper, No. 20, 1922, p. 175.
[37]*Ibid.,* p. 183.
[38]*Ibid.,* p. 130.
[39]3 Edward VII, c. 71, sec. 7 of the agreement.

more, it was common knowledge as early as 1908 that the road was costing much more than had been anticipated. There is no doubt that the Grand Trunk Pacific failed to exercise the supervision that it should have done. The argument as to cost of construction was only advanced at the last minute, for as late at July 19, 1913, the President of the company stated that so far as he could see, there would be no change in the plans of the Grand Trunk Pacific to take over the National Transcontinental.[40]

The second argument was that the road had not been constructed on sound business principles or in accordance with the Act of 1904. As a result, the completion of the portion most useful to the company, namely, between Winnipeg and Cochrane, was delayed, "to the great loss and prejudice of the company." With respect to this contention, Commissioners Drayton and Acworth said:[41] "there was indeed a provision of the National Transcontinental Act of 1904 that the Government should so construct the railway that the section between Winnipeg and Quebec and that between Quebec and Moncton should be completed as nearly as practicable at the same time. But that was a statutory public obligation and confers no contractual right on the Grand Trunk Pacific Company. It may well be that in this and in other respects the Grand Trunk failed to procure the insertion in its agreement with the Government of stipulations which prudence would have recommended."

Since the Grand Trunk Pacific refused to lease the National Transcontinental from Moncton to Winnipeg, it was turned over to the Minister of Railways and Canals, on May 1, 1915, for operation as part of the Canadian Government Railways. The rolling stock which the Grand Trunk Pacific had been expected to provide was supplied by the Intercolonial Railway. One month later the Government leased the Lake Superior branch from the Grand Trunk Pacific for a period of 999 years, at an annual rental of $600,000. This line had been built to provide a connection between the National Trans-

[40] *Commercial and Financial Chronicle,* Vol. 97, p. 175.
[41] Railway Inquiry Commission, *Report,* 1917, p. xxxi.

continental and the Great Lakes at Port Arthur, and it was of no further use to the Grand Trunk Pacific on its failure to operate the National Transcontinental. By these steps the Government added 2,007 miles of line to the existing Canadian Government Railways, and was thereby obliged to forego the anticipated rental which would have yielded a return of three per cent on its investment. Consequently, the Government not only absorbed a loss of approximately $5,000,000 yearly on its investment in the National Transcontinental, but in addition paid the operating deficit which averaged $2,395,000 yearly for the six years 1916 to 1921 inclusive. Along with the remainder of the Canadian Government Railways proper, the Transcontinental became an integral part of the Canadian National Railway System, but the Government has received no income on its investment of approximately $400,000,000 in these properties.

As explained in greater detail in Chapter VII, the Grand Trunk Pacific was placed in receivership on March 9, 1919, with the Dominion Minister of Railways as receiver. From that point, it was but a short step to the government acquisition and operation of the entire Grand Trunk System.

CHAPTER III

THE CANADIAN NORTHERN RAILWAY SYSTEM

THE annals of railway history relate no more remarkable performance than the development of the Canadian Northern Railway System by William Mackenzie and Donald Mann. Beginning with a road a hundred miles long in 1899, they rapidly built a profitable railway system in the Canadian middle west, and by 1917 they had a transcontinental system with 9,300 miles of line, capitalized at more than $500,000,000. The story of the Canadian Northern is unusual because of the rapid construction of the system, the manner of financing it, and particularly because control of the entire property was centred in the hands of Mackenzie and Mann, until it was acquired by the Canadian Government in 1917. In the words of Skelton:[1] "Their plan was simple in principle, if wondrously complicated in working out. It was to build the road by government subsidies and the proceeds of bonds guaranteed by the Government, and to control the road by issuing to themselves, for their services of promotion and management, practically all the common stock. To carry out this audacious plan, political influence, public enthusiasm and the confidence of outside investors in Canada's future were all required and were forthcoming."

Mackenzie and Mann entered the western railway scene under auspicious circumstances. With or without justification the monopoly of the Canadian Pacific was becoming increasingly irksome to the prairie people.[2] When the Dominion Government chartered the Canadian Pacific, it had agreed not to permit the building of any lines between the Canadian Pacific main line and the United States border, running south

[1]Skelton, O.D., *The Railway Builders*, p. 195.
[2]Innis, H. A., *History of the Canadian Pacific Railway*, pp. 174-5, 179-80. Also Moore, W.H., *Railway Nationalization and the Average Citizen*, pp. 65-6.

or southeast, for twenty years.[3] Under constant pressure from Manitoba, the Dominion Government repealed this provision with the consent of the company in 1888.[4] The immediate result was that the Northern Pacific proceeded to build several hundred miles of line in southern Manitoba. However, little competition developed between the two companies, and dissatisfaction over the rates of the Canadian Pacific continued. The government of Manitoba considered various plans for securing competitive railway service and made it quite clear that it would aid any interests which would construct railway lines to compete with the Canadian Pacific Railway. The possibility of constructing a provincial government railway from Winnipeg to the head of the Great Lakes was also seriously considered.[5] The situation was recognized by the Dominion Government in 1897 in the Crow's Nest Pass rate agreement whereby the Canadian Pacific agreed to lower rates on grain and on commodities moving to the prairies from the East in return for a subsidy to construct the Crow's Nest Pass branch line.[6]

With its main line extending through Brandon, Regina, Moose Jaw, Medicine Hat and Calgary, the Canadian Pacific up to the closing years of the century served the southern part of the Canadian prairie. South of its main line it had more than 1,000 miles of branch lines, including its connections with roads in the United States and the Crow's Nest Pass Line. The railway mileage to the north of the main line amounted to about 945 miles and of this, some 510 miles were owned or controlled by the Canadian Pacific. In 1900 the Manitoba and Northwestern was leased, adding a further 324 miles to the railways leased or owned by the Canadian Pacific.

The transcontinental system of the Canadian Northern had its inception in 1896 when Mackenzie and Mann purchased the charter of the Lake Manitoba Railway and Canal Com-

[3]Sec. 15 of the agreement of 1881. Quoted in Innis, *op. cit.*, p. 305.

[4]Innis, *op. cit.*, p. 182.

[5]From unpublished historical material in the archives of the Canadian National Railways. Except when otherwise indicated, the historical data concerning the Canadian Northern were from this source.

[6]Jackman, W. T., *Economics of Transportation*, p. 23.

pany.[7] This provided for a line 123 miles long from Gladstone, on the Manitoba and Northwestern, in a northerly direction to Winnipegosis. Construction was completed in 1897, and the company received from the Dominion Government a grant of 6,400 acres of land per mile of line and from the Manitoba government a guarantee of bonds at the rate of $8,000 per mile.[8] In the same year running rights were secured over the Manitoba and Northwestern from Portage La Prairie to Gladstone. Prior to this the Winnipeg Great Northern Railway, under a different name, had constructed a line 40 miles long from Winnipeg in a northerly direction to Saint Laurent on Lake Manitoba. In 1899, the Canadian Northern Railway Company came into existence through an amalgamation of the Winnipeg Great Northern Railway and the Lake Manitoba Railway and Canal companies.[9] The same year the government of Manitoba guaranteed a bond issue of the new company at the rate of $8,000 per mile, for a line to be constructed in a northwesterly direction from Sifton Junction. Before 1901 this line had crossed the border into what is now Saskatchewan at Erwood. Meanwhile, in 1897, Mackenzie and Mann started construction of a railway from Winnipeg, southeasterly to the international boundary (98 miles) under the charter of the Manitoba and South Eastern Railway. In 1899 the line was completed, secured the usual guarantee of bonds from the province, and was amalgamated with the Canadian Northern in the following year. Then the link to Port Arthur, at the head of the Great Lakes, was obtained in 1902 over the lines of the Ontario and Rainy River Railway, which before completion had been amalgamated with the Canadian Northern in 1900.

In 1901 the Manitoba government acquired by a 999 year lease, at a payment of $300,000 a year, the 354 miles of the Northern Pacific Railway within Manitoba. These lines

[7]Sessional Paper, No. 20, 1920, pp. xxxiii-xxxiv, which traces the historical development of the Canadian Northern.

[8]Skelton, *op. cit.* p. 185, also Manitoba Statutes, 59 Victoria, c. 10, 1896.

[9]This was confirmed by Dominion Statutes 62-63 Victoria c. 57. Section 6 prohibited the Canadian Northern and all lines under its control from amalgamating with the Canadian Pacific Railway Company or any of the lines under its control.

were then leased to the Canadian Northern, so that by 1902 that company had over 1,200 miles of line extending from the head of the Lakes at Port Arthur to Brandon in Manitoba and to Erwood, far to the north in Saskatchewan.[10]

When the Manitoba Government guaranteed the bonds of the Canadian Northern on its lines from Winnipeg to Port Arthur and turned over to the Canadian Northern the leased lines of the Northern Pacific and Manitoba Railway, the Canadian Northern agreed to reduce its rates by about 15 per cent on commodities other than grain shipped from and to points in Manitoba and the head of the Lakes.[11] The rate on wheat which had been established at 14 cents per 100 lbs. from Winnipeg to Port Arthur under the Crow's Nest Pass agreement was also lowered by the Canadian Northern first to 12 cents and then to 10 cents. "The result of the agreement was that, although the operations of the Canadian Northern at that time were comparatively small, for competitive reasons the Canadian Pacific was compelled to accept the scale of rates that the Canadian Northern had been paid to adopt, and to put into effect decreases which . . . the Canadian Pacific thought could but result in the insolvency of the Canadian Northern."[12] Incidental to these reductions the Canadian Pacific voluntarily lowered its rates in Saskatchewan and Alberta by one-half of the reductions instituted in Manitoba. The railway policy of the Manitoba Government was at last bearing fruit.

The acquisition of the Northern Pacific lines in southern Manitoba and the construction of numerous branch lines soon enabled the Canadian Northern to give effective competition to the Canadian Pacific in southern Manitoba. A new era was beginning and farmers gave rights-of-way and offered their services freely for grading work. Yet Mackenzie and Mann realized that no matter how popular construction in Canadian Pacific territory might be, the real future of the Canadian

[10] For an interesting account of the development of the Canadian Northern see Canadian Northern Arbitration, Evidence, 1918, pp. 42-74.

[11] Jackman, *op. cit.*, p. 229.

[12] 17 Canadian Railway Cases, 123 (Western Rates Case), at p. 215. Quoted in Jackman, *loc. cit.*

Northern Railway System, symbolized in its title, was the northern portion of the Canadian northwest. Accordingly they struck far to the northward of existing settlement, their program embracing the whole northern part of the prairie. Their judgment was sound for in but a few years the development of early-maturing wheats, first the Red Fife and then the Marquis wheat, converted what was a barren, desolate area into a wonderfully productive wheat country. Immigration into Canada increased rapidly from 21,716 in 1897 to 128,364 in 1903. Each year the figures grew until a maximum was reached in 1913 with a total immigration of 402,432. Optimism respecting the future growth of the country was at a high point and was responsible for a railway boom, which resulted in such an over-extension of railway lines that it ultimately brought disaster to the new railways.

The original intention of the Canadian Northern was to build a line from the head of the Great Lakes to Winnipeg and to the northern section of Manitoba and then to Prince Albert and Edmonton. These plans were revised in 1903 and the main line was constructed somewhat south of Prince Albert through to Edmonton, which was reached in 1905. By 1910, the Canadian Northern constituted an important network of lines, operating through a very fertile part of the Canadian prairie with access to the head of the Great Lakes at Port Arthur.

Throughout these early years of expansion in the West its business was increasingly profitable, largely because its lines were entirely in revenue-producing territory, and because they were built and operated with sound economy.[13] The view has been widely expressed that had the Canadian Northern confined itself to the Middle West, it might have become a very conspicuous success.[14] Mackenzie and Mann had ambitions for a transcontinental system, however, for in 1902, authority was obtained from the Federal Parliament

[13]Canadian Northern Railway Company, *Annual Reports,* 1903-12.

[14]Jackman, W. T., *op. cit.,* p. 25; Sir Robert Borden, House of Commons Debates, May 8, 1916; Hon. Geo. P. Graham, *ibid.*

to build eastward toward Montreal.[15] Thus before the Grand Trunk had matured its plans to build into the rich and rapidly developing areas of the West, the Canadian Northern was planning to secure eastern outlets.

The reason for desiring eastern connections was described by Sir Donald Mann before the Arbitration Board which determined the value of the Canadian Northern stock in 1917 when he said:[16] "We were in the west, and we were bottled up; anything we had to send—or get from the east had to go over our rival's railway . . . I tried many times to make a satisfactory arrangement with the C.P.R., but they were not friendly and [I] could not do it." Unfortunately for the country, the Canadian Northern was also unable to come to a successful agreement with the Grand Trunk Railway to avoid a duplication of lines when the Grand Trunk decided in 1903 to build westward. In this regard Mann testified as follows: "Both companies wanted to buy us out and neither was friendly. Of course the Grand Trunk made no bones about it. The Government sent for us and we had a session at Ottawa, and they (the Grand Trunk) wished to buy us out and always were in the hope they would buy us out. We offered to build a joint section from Port Arthur to North Bay, and we would develop the west and they would develop in the east. That was before the Grand Trunk Pacific was built and they refused and would not do anything but buy us out. We were too young and ambitious to sell out at that time. That was the year they got their charter (Grand Trunk Pacific charter, 1903) and we were running to Port Arthur at the time."

As early as 1903, the Mackenzie and Mann interests began to construct or acquire short lines of road in eastern Canada. For example, in 1903 the Central Railway in Nova Scotia and the Chateauguay and Northern Railway in Quebec were acquired; the Halifax and South Western (19 miles) was constructed and opened in 1905; the line from Toronto to James Bay Junction (147 miles) was opened in 1906, and the

[15]Statutes of Canada, 2 Edward VII, c. 50, 1902.
[16]Canadian Northern Arbitration, *Evidence*, pp. 2683-6.

Halifax and Yarmouth Railway (50 miles) and the Middleton and Victoria Beach Railway (39 miles) were purchased in the same year. In 1908 the Quebec and Lake St. John Railway was acquired and also the lines of the Niagara, St. Catharines and Toronto (electric).[17]

By these acquisitions in Eastern Canada, the promoters of this rapidly expanding system, manifested their ultimate aim of a transcontinental system. The annual reports of the company from 1910 on clearly indicated their purpose. The following extracts are pertinent: "Two more important steps have been taken during the year toward making the Canadian Northern a transcontinental railway with its own trans-oceanic connections. A contract has been entered into between the Canadian Northern Pacific Railway Company (which was separately incorporated on account of necessary arrangements in connection with the proposed issue of securities guaranteed by the Government of British Columbia) and the Government of British Columbia for the construction of a line from the Province of Alberta to the Pacific Coast, a distance of approximately 500 miles . . . Through a subsidiary company, viz., the Canadian Northern Steamships Limited, your directors now operate the two fastest steamers in the British-Canadian service . . . They furnish a fortnightly service between Bristol, Quebec and Montreal."[18] Again in the annual report for 1911: "The year just passed is important in the history of your company because of the final step toward the accomplishment of your directors' determination to secure for it the status of a Transcontinental System. In May last the Dominion of Canada entered into an agreement with the Canadian Northern Ontario Railway Company to facilitate the construction and guarantee the financing of a line from Montreal to Port Arthur to connect there with the present eastern terminus of the Canadian Northern Railway. This arrangement together with the similar contract entered into last year with the government of British Columbia . . . assures for your railway the completion

[17]Sessional Papers, No. 20, 1920, p. xxxiv.
[18]Canadian Northern Railway Company, *Annual Report*, 1910, p. 7.

of the original project for the establishment of a transcontinental service. The construction of both lines is now being vigorously pushed forward."[19]

Explanation of the rapid expansion of the Canadian Northern and the Grand Trunk must be sought in the unbounded spirit of optimism that prevailed throughout the country in the years following the turn of the century. The sentiment of the times is well illustrated in the preamble to the Dominion Act of 1911 providing for aid to the Canadian Northern Ontario Railway: "Whereas, having regard to the growth of population and the rapid development of the production and trade of that portion of Canada lying west of the Great Lakes, and to the rapidly expanding trade and commerce of the Dominion, it is in the interest of Canada as a whole that another line of railway designed to assist in the direct interchange of traffic between the eastern and western portions of the Dominion, to open up and develop portions of Canada as yet without railroad facilities, to promote the internal and foreign trade of Canada, to develop commerce through Canadian ports, and to afford the government system of railways in Quebec, New Brunswick, Nova Scotia and Prince Edward Island an interchange of through traffic, should be constructed from the Pacific Ocean to the City of Montreal."[20]

The rapid railway development in the first decade of the present century gave a stimulus to industry that was cumulative in its effects. Prosperous times in Canada, coupled with the passing of the frontier in the United States, brought a flood of immigrants to the country.[21] Everyone thought that the natural advantages and resources of the country would continue to attract an increasing influx of immigrants and capital. The land boom went so far that, even though there were millions upon millions of acres of the finest prairie land unsettled, the promoters of the Canadian Northern looked

[19] *Ibid.*, 1911, p. 8.
[20] Statutes of Canada, 1-2, George V., c. 6.
[21] Approximately 2,700,000 immigrants entered Canada between 1903 and 1914. *Canada Year Book*, 1926, p. 171.

to the early development of the great clay belt of northern Ontario, through which their line passed for a distance of three hundred and fifty miles.[22]

Owing to difficulties of financing as a result of the War, the completion of certain portions of the system was delayed. Toward the end of 1915, however, its transcontinental service was established with a main line traversing the continent from tidewater on the Atlantic at Quebec, to tidewater on the Pacific at Vancouver, with branches gridironing the grain-growing provinces of the West and with trunk lines and branches serving the main industrial centres of the East, in all a system over 9,000 miles in length.[23] The romance of its construction is fittingly described by Skelton in the following: "In 1896, a railway a hundred miles long, beginning and ending nowhere, operated by thirteen men and a boy! In 1914, a great transcontinental system practically completed, over ten thousand miles [sic] in length, and covering seven of Canada's nine provinces! The impossible had been achieved."[24]

Prior to the autumn of 1915 the chief lines of the Canadian Northern Railway proper were located in Western Canada. The eastern holdings of Mackenzie and Mann were separately incorporated and as yet not combined with the Canadian Northern. However, in 1914, in order to facilitate further financing for the completion of the system, parliamentary authority was obtained for consolidating into one system the various railway properties of Mackenzie and Mann. Actually, legal consolidation into one company was not accomplished, although the Canadian Northern Railway Company became the holding company that held together the various constituent companies comprising the system, and a consolidated system of accounts was maintained beginning with 1915.

[22]Canadian Northern Railway Company, *Annual Report,* 1912, p. 8.
[23]*Ibid.,* 1915.
[24]Skelton, *op. cit.,* p. 195.

FINANCIAL ASPECTS OF THE CANADIAN NORTHERN

The Canadian Northern Railway System consisted of numerous affiliated companies mostly held together loosely by stock ownership and a few by lease.[25] Since the promoters relied heavily upon provincial as well as federal government guarantees of securities, they found it necessary to incorporate separately in almost every province. Thus many of the lines in Saskatchewan were built by the Canadian Northern Saskatchewan Railway Company, in Alberta by the Canadian Northern Alberta Railway Company, in British Columbia by the Canadian Northern Pacific Railway Company, and so forth. There were separately incorporated leased lines, like the Manitoba and Northern Pacific Railway Company, as well as separate terminal companies, land companies, and so on, numbering about forty in all. The financial set-up of the system was equally complicated, since the parent company by 1916 had fifteen separate bond issues outstanding, several issues of short-term notes and equipment trust obligations, numerous demand loans from financial institutions, and in addition each of the important affiliated companies had one or more issues of bonds outstanding.

During the period from its inception to its acquisition by the Government in 1917, the Canadian Northern system received almost every known form of governmental financial assistance. The principal form, which ultimately resulted in the nationalization of the Canadian Northern, was the guarantee of securities. The general method of financing the Canadian Northern was to issue first mortgage bonds to cover the cost of individual lines from point to point in the same province. These were guaranteed usually by the provincial government. In 1903 the Dominion Government guaranteed an issue of approximately $10,000,000 of 3 per cent first mortgage bonds which were a first lien on the

[25]The details of the financial history of the Canadian Northern were obtained from the archives of the Canadian National Railways. The Canadian National has prepared an elaborate map of its railway lines which shows the priority of lien of its numerous security issues; the accompanying text gives a complete description and history of each issue.

main line of the Canadian Northern extending from Grandview in Manitoba to Strathcona near Edmonton. Then in 1908 another Dominion guarantee was attached to nearly \$8,000,000 of 3½ per cent first mortgage bonds on certain lines constructed in Saskatchewan. Two separate issues, totalling about \$6,500,000 were guaranteed in 1911 and 1912 by the Dominion, and were a first lien on the main line from Edmonton to the British Columbia border. In 1911 the Dominion Government guaranteed a large issue of 3½ per cent bonds of the Canadian Northern Ontario amounting to \$35,500,000, which were a first lien on the bridge line constructed north of the Great Lakes from Port Arthur to Ottawa. Finally, in 1914, the Dominion Government guaranteed a \$45,000,000 4 per cent debenture issue of the Canadian Northern to enable it to complete the system.

Meanwhile, as the Canadian Northern became better known it had raised large amounts by the issue of 4 per cent perpetual consolidated debentures and later of convertible income bonds, on its own credit. The issue of perpetual consolidated bonds were for betterment purposes, and there was a provision attached to them that construction bonds with a prior lien could still be issued on individual lines, up to a certain fixed limit. All the financing of the company with one minor exception was done in London, which fact proved embarrassing to the Canadian Northern in 1914 when the outbreak of the War made further financing by public issues difficult, if not impossible. When the War came the Canadian Northern, with much mileage still to be constructed, had treasury securities issued and unsold, both guaranteed and unguaranteed, to the extent of more than \$100,000,000. These securities called for interest rates of 3½, 4, and 4½ per cent and could not possibly be sold except at ruinous discounts. The company was forced to resort to short-term financing to the amount of nearly \$30,000,000, and to temporary loans of \$56,000,000 from the Dominion Government and miscellaneous banks and trust companies against the deposit of securities as collateral.

The difficulties experienced in financing held up construc-

tion materially on the uncompleted extensions. It had been reasonably expected that the line from Edmonton to Vancouver would be open for traffic in October or November of 1914.[26] In point of fact it was not until the spring of 1916 that operations in British Columbia were functioning smoothly. Equally disastrous was the delay in the completion of the line between Port Arthur and Sudbury. The program called for completion in 1914, but it was the fall of 1915 before an irregular service was established and months later before a regular freight and passenger service came into force. The result of these delays was that the company began to experience great difficulty in meeting its fixed charges until finally, in 1917, with large demand loans still outstanding it was unable to keep solvent without continued assistance from the Government. Then came the Railway Inquiry Commission's report in 1917, and its recommendation that no further aid be granted to the Canadian Northern while it remained privately owned or controlled. The Government concurred in this counsel and the purchase of the Canadian Northern stock followed.

At the close of the fiscal year on June 30, 1916, the system had outstanding securities bearing the guarantee of the Dominion or of Provincial Governments as follows:[27]

GUARANTEED SECURITIES OF THE CANADIAN NORTHERN SYSTEM

Guaranteed By	*Par Value*
Dominion Government	$104,613,247
Province of Alberta	18,950,361
Province of Saskatchewan	14,762,546
Province of Manitoba	25,501,865
Province of Ontario	7,859,997
Province of British Columbia	39,953,124
Total	$211,641,140

The company had been able to sell only $151,438,445 of these securities to the public; the balance, together with other treasury securities, was pledged as collateral for loans from

[26]Canadian Northern Arbitration, *Evidence*, pp. 594-6, 610.
[27]Railway Inquiry Commission, *Report*, 1917, p. xv.

various banks and from the Government.[28] In addition to this sum of $151,438,445, there were also outstanding, in the hands of the public, interest-bearing securities to the amount of $143,326,819 as well as $55,912,961 of demand loans.[29] The stake of the governments, federal and provincial, in the success of this enterprise was therefore considerable.

The Canadian Northern was also the recipient of very liberal cash subsidies from the Dominion Government, the various provinces and to a small extent from various municipalities. The following table shows the aid which the Canadian Northern system received from this source up to June 30, 1916:[30]

CASH SUBSIDIES

(a) Paid by Dominion Government	$31,286,720
(b) Paid by Provinces	6,821,724
(c) Paid by Municipalities	765,704
Total	$38,874,148

Further aid was received by the Canadian Northern in the form of land grants as shown in the following table, which gives the location of the land and the amount sold up to June 30, 1916:[31]

LAND GRANTS OF THE CANADIAN NORTHERN

Location	*Received Acres*	*Sold Acres*
Nova Scotia	150,000	150,000
Quebec	402,860	
Ontario	2,000,000	
Manitoba, Saskatchewan and Alberta	4,002,848	3,159,720
	6,555,708	3,309,720

[28]Loomis, E. E. and Platten, J. W., *Report on the Canadian Northern Railway System,* March 1917, pp. 19-22.

[29]Canadian Northern Arbitration, Exhibit No. 7. This was a financial report prepared by the official auditor of the Canadian Northern, presenting the assets and liabilities of the system on June 30, 1916. Officers of the company claimed that the actual cash value of the Government guarantees to the Canadian Northern was approximately 6 per cent of the amount issued, i.e., $12,700,000. No better argument against Government guarantees of securities can be given, for, in giving aid which had a relatively small cash value, the Dominion assumed huge liabilities.

[30]Railway Inquiry Commission, *Report,* 1917, p. xiv. Approximately $5,000,000 of these subsidies were given to companies prior to their acquisition by the Canadian Northern.

[31]*Ibid.,* p. xv.

The amount realized from the sale of these lands was $16,603,295, and in addition deferred payments amounting to $7,140,996 were carried on the books as of June 30, 1916. The company appraised its unsold lands at that time at $19,885,485. To be sure, since the value of the land without the railways was negligible, it cannot properly be claimed that the Canadian Northern received from the various governments any more than the value of the land grants at the time the grants were made.

To complete the picture of government aid to the Canadian Northern, it is necessary to mention the direct cash loans from the Dominion Government in the trying financial period brought about by the outbreak of war, amounting to $25,858,166 up to June 30, 1916.[32]

The outstanding liabilities of the Canadian Northern system on June 30, 1916, amounted to $427,947,574. This was exclusive of common stock amounting to $105,000,000 for which no cash consideration had been received by the company, but inclusive of the $25,000,000 issue of income charge convertible debentures. The details of the Canadian Northern liabilities were as follows:[33]

LIABILITIES OF THE CANADIAN NORTHERN SYSTEM, JUNE 30, 1916

FUNDED DEBT IN THE HANDS OF THE PUBLIC			
Canadian Northern Railway		$162,192,440	
Affiliated companies		123,223,824	
Leased lines owned or controlled:			
Northern Pacific and Manitoba Railway		7,000,000	
Duluth, Rainy Lake and Winnipeg Railway		2,000,000	
Minnesota and Manitoba Railway		349,000	
UNFUNDED DEBT			$294,765,264
Temporary loans (secured by collateral)		$55,912,961	
Due on construction account (secured)		16,666,957	
Current liabilities:			
Payrolls	$1,832,708		
Taxes	250,000		
Accrued interest	4,579,271		
Audited vouchers and other liabilities	12,077,913	18,739,892	
			91,319,810
Equipment trust obligations			16,862,500
Convertible debenture income stock			25,000,000
Total (excluding common stock)			$427,947,574

[32] *Idem.*

[33] Canadian Northern Arbitration, Exhibit No. 7.

The funded debt as shown above included short-term notes of from one to three years amounting to $29,500,333, which added materially to the precarious financial condition of the company. Since the common stock was issued to the promoters, Mackenzie and Mann, in return for their services and without any cash consideration to the Canadian Northern, it is clear that all of the money that went into the properties was borrowed with the exception of the cash subsidies and the proceeds from the sale of lands. Considering the fact that most of the lines of the system were built ahead of settlement, the magnitude of the mistake in the method of financing the Canadian Northern is apparent.[34] To a large extent this was concealed prior to 1916 because part of the interest burden was charged to capital while lines were still under construction.

It is not possible to give as accurate an account of the value of the Canadian Northern assets as it is of its liabilities. The company's accounting rules and practices were practically unregulated throughout its history. It is not known how much interest and maintenance expense were charged to capital in order to show adequate net earnings. Nevertheless, there are available several estimates of the value of the Canadian Northern undertaking. The Railway Inquiry Commission of 1917 endeavored to ascertain the actual cost of the system from sworn statements supplied by the company. This took the form of adding together the money realized from the sale of securities, loans, subsidies, land sales, etc., and the amounts due on construction, and for wages and taxes, the indicated railway surplus and the value of bonds assumed in the acquisition of constituent companies. In that way the total amount of money or credit invested in Canadian Northern assets, $436,173,762, was determined. By adding together the various current and other asset items amounting to $52,871,310 and subtracting this figure from the total funds or credit invested, the difference, $383,302,451, was the amount that was available for investment in

[34]Not to mention the magnitude of the risk assumed by the Government as a result of its unwise policy of guarantees.

road and equipment. The commission estimated, however, that $13,000,000 of this had been paid out for interest and operating deficits on lines subsequent to their completion, so that the actual investment in road and equipment and other physical properties was $370,302,451.[35] With the inclusion of current assets, the total value of the Canadian Northern properties on a cost basis on June 30, 1916, was $436,173,762 to which should be added the value of unsold lands which were carried on the books at $19,885,485. This amount, $456,059,247, is to be compared with the total liabilities of the Canadian Northern (other than common stock) of $427,947,574. On this basis the book value of the common stock was $28,111,673. But the equity in physical property did not all belong to the Canadian Northern shareholders, since there were minority holdings in several of the subsidiary undertakings. The Commission estimated that the value of these minority holdings was about $10,000,000, but it is not possible to check the accuracy of their calculation.[36] In any event it is believed that the foregoing figures give a fair estimate of the book values of the Canadian Northern properties.

Another method of ascertaining the value of the Canadian Northern properties was to estimate the cost of reproducing the properties. This was done for the Railway Inquiry Commission under the supervision of Professor Swain of Harvard University. The physical valuation was determined on the assumption that "the properties were to be reproduced at fair average prices prevailing during a brief period of years just before the war."[37] Although nothing was actually paid for most of the land used for right-of-way purposes, Swain valued the right-of-way on the basis of the value of adjoining lands, multiplied by some factor to give credit for a hypothetical cost of severance damages. In this regard he

[35]Railway Inquiry Commission, *Report,* 1917, pp. xlii-xliii.

[36]*Ibid.,* p. xliv. It is interesting to note that, a year later, the Canadian Northern Arbitration Board placed a value of $18,000,000 on the common stock of the Canadian Northern.

[37]Railway Inquiry Commission, *Report,* 1917. Appendix A, p. 6.

reported:[38] "The multiples which I have used are moderate, and much less than those which have been used in some other valuations. For the major portion of the right-of-way, the multiple has been two; in other words the unit price of the right-of-way has been taken as twice the value of adjoining lands . . .; while in the cities and towns the multiple has been one and a quarter." A further amount was added for hypothetical overhead charges, amounting to 24 per cent; and since this percentage was added to the estimated value of the right-of-way, the net result was that most of the main line was valued at two and a half times the value of adjoining lands.[39] On this basis the value of Canadian Northern land (other than land grants) was determined as $67,722,858, out of a total value for the physical properties of $397,441,563, exclusive of the value of the rolling stock.[40] Allowances for contingencies, engineering and other overheads were added to all items (other than land). These were 30 per cent for the eastern properties and 27.2 per cent for the western.[41] An estimate of the total depreciation of the property other than equipment was given as approximately $40,000,000.[42] Professor Swain was of the opinion that in determining value as a basis of rates, of capitalization or condemnation, no depreciation should be deducted from cost of reproduction new, unless the company had failed to maintain the property in reasonably good operating condition. He admitted, however, that some depreciation should be deducted if the property had been undermaintained, and he pointed out that "it is an undoubted fact that some parts of the Canadian Northern system have been allowed to depreciate unduly and to a considerable extent."[43] Needless to say, this question of deducting estimated depreciation was a "bone of contention" in the arbitration proceedings a year later. The value of equipment was given as $56,590,418, and the depreciation $11,250,433,

38 *Ibid.*, p. 25.
39 *Ibid.*, p. 30.
40 *Ibid.*, p. 35.
41 *Ibid.*, p. 31.
42 *Ibid.*, p. 35.
43 *Ibid.*, p. 47.

making the depreciated valuation $45,339,985.[44] Putting the two valuations together, the fair depreciated value of the physical properties of the Canadian Northern amounted to $402,749,663.[45] This excluded the current assets of the company and the value of its unsold lands amounting to $65,762,182,[46] making the total valuation $468,511,845, as compared with total liabilities (excluding common stock) amounting to $427,947,574.

Since the purpose of ascertaining the cost of reproducing the properties of the Canadian Northern was to obtain a guide to judge the reasonableness of the company's original cost figures, the method of valuing land gave a grossly inflated figure which was at least $33,000,000 more than the actual expense incurred by the company for this item.[47] As for depreciation, only the depreciation due to undermaintenance, for which no figures are available, should have been deducted, since Canadian railways have always followed the principle of retirement or replacement accounting rather than that of depreciation accounting. Professor Swain's work was necessarily done in a rough way due to limitations of time and for that reason, as he himself admitted, his valuation erred on the liberal side if it erred at all. As a matter of fact, there is only a difference of about $12,000,000 between the estimated book value of the assets of the Canadian Northern ($456,059,247), and Swain's figure for cost of reproduction less depreciation (including current assets). It is probable that the difference about measures the amount of inflation in Swain's figures.

The earning power of the Canadian Northern furnishes another basis for estimating the value of the system and the value of the common stock equity. According to the reports of the company, the net earnings were sufficient to meet interest charges and leave a surplus every year from 1903 to 1914.

[44]Railway Inquiry Commission, *Report,* 1917, p. xliii.

[45]*Idem.*

[46]Canadian Northern Arbitration, Exhibit No. 7. In this exhibit the Company contended that the Railway Inquiry Commission's conclusion, that the common stock had no value, was erroneous because the Commission had overlooked the current assets.

[47]Railway Inquiry Commission, *Report,* 1917. Appendix A, p. 44.

The surplus accumulated from earnings amounted to nearly \$7,000,000 on June 30, 1914. But in the next two years this surplus had decreased to \$2,250,000, due to the failure of the system to earn all of its fixed charges in 1915 and 1916. These figures were contested by government experts at the arbitration proceedings on the ground that the properties had been undermaintained, depreciation expense had not been deducted and discount on securities had not been amortized. Whether the estimated deductions for these factors had been large or small, they would have converted the small surplus into a substantial deficit. Moreover, it should be remembered that some of the fixed charges each year were not charged against earnings but were included in the cost of the properties under construction. Thus for the year ending June 30, 1916, the company charged interest to the amount of \$5,445,389 against capital in respect of "lines under construction," and failed to meet the remaining interest charges by \$250,000. In addition, the company did not pay the interest amounting to \$1,250,000 on its income bonds. For these reasons and by virtue of the perilous financial condition of the system, there is no doubt that the Canadian Northern was bankrupt in 1916 and that no equity attached to the common shares.

Although the immediate construction program of the Canadian Northern was completed by 1916, the system still required large capital expenditures for equipment and for additions and betterments to enable it to render efficient service. Both the majority and minority reports of the Railway Inquiry Commission of 1917 stressed the uncompleted condition of the Canadian Northern. The majority claimed that "\$40,000,000 for new equipment, and perhaps \$30,000,000 for additions and betterments, would be a moderate estimate of the system's needs in the next five years."[48] The requirements of the Canadian Northern in this regard were discussed more thoroughly in a report prepared by Mr. Edward E. Loomis, President of the Lehigh Valley Railroad Company, and Mr. John W. Platten, President of the United States Mortgage and Trust Company, with the assistance of a firm

[48] *Ibid.*, p. xli.

of consulting engineers. The report, dated March, 1917, was prepared preliminary to negotiations between the directors of the Canadian Northern and New York financial interests with the view of securing financial assistance for the company. The negotiations failed to materialize, partly due to the uncertainty of the future and to the disturbed nature of the financial market. According to the Loomis report, power and equipment were inadequate even for existing traffic, the passenger and freight terminals at Vancouver and Montreal were still uncompleted, more general repair shops were required, as well as terminal improvements at various points. It was estimated that the improvement and betterment program would entail capital expenditure of $99,000,000 over a five-year period.[49] This figure included $50,000,000 for power and equipment. As it turned out, capital expenditures of the Canadian Northern for the five-year period, 1917-1921, were in excess of $100,000,000, all of which was advanced by the Dominion Government with the exception of $20,000,000 raised through the sale of equipment trust certificates.

[49]Loomis and Platten, *op. cit.*, p. 25.

CHAPTER IV

THE RAILWAY INQUIRY COMMISSION OF 1916

THE railway situation in 1916 was beginning to be a source of anxiety to the Dominion Government. The expectations of the builders of the new lines had failed to materialize, and both the Canadian Northern and the Grand Trunk Pacific were in serious financial difficulties. The hope of the promoters and the railway policy of the Government had been based on the belief that continued immigration would rapidly settle the areas tributary to the new railways and give them abundant and lucrative traffic, as had been the experience of the Canadian Pacific. Instead the War came, European labor and capital were conscripted for the struggle, immigration fell off abruptly, building and operating costs increased rapidly, and the new railways found themselves in a vulnerable position.

Representations were made to the Government early in 1916 by the Grand Trunk Pacific and the Canadian Northern that they urgently needed more financial assistance to enable them to maintain operations.[1] In view of the financial condition of these two railway companies the Government had ample cause for anxiety. Several hundred million dollars of their securities, the majority of which bore the guarantee of the Government, had been sold to investors in Great Britain, the United States and Canada. As a result, the Government felt that any crisis in the affairs of the Canadian Northern and the Grand Trunk Pacific "could not but react seriously upon the general credit of the Dominion in the eyes of the world."[2]

In giving consideration to the request of these two companies for further assistance, the Government took the stand

[1] House of Commons Debates, Canada, May 8, 1916.
[2] *Ibid.*, p. 3563. Words of Sir Thomas White, Minister of Finance.

that there were three possible solutions of the railway crisis at that time. The first was to withhold aid and to permit the two railway companies to go into the hands of receivers, the second was to permit default and then assume the liabilities and take over the physical properties of the two systems, the third (which was the one proposed by the Government) was to afford the minimum of assistance necessary to enable them to continue in operation without default, pending an investigation by experts into the economic and financial aspects of the railway situation. "The time has arrived when it has become imperatively necessary that a permanent solution be found for the existing railway situation."[3] In the same debate a former Minister of Railways summed up his views on the prevailing policy of spoon-feeding the railways in the following terms: "the difficulty that confronts this House is this: How long, O Lord, how long?"[4]

If the first alternative had been employed, it is probable that there would have been no nationalization of railways in Canada. It was believed by the Administration, however, that there would be dire consequences if these roads were allowed to default and go through receivership and reorganization proceedings.[5] In the case of the Grand Trunk Pacific, default would have involved the Grand Trunk Railway under its guarantees. In the case of the Canadian Northern there was a floating debt of over ninety million dollars loaned in large part by banks and trust companies, and default might well have caused a financial panic in Canada. But by far the most important consideration was that of the public credit. Prominent members of Parliament took the position that the collapse of these two railways, involving also the Grand Trunk, would have "disastrous effects upon the entire credit, federal, provincial, municipal and industrial of the country."[6] Purchasers of these companies' securities, in England particularly, had come to believe that the government aid, so lavishly granted,

[3] *Idem.*
[4] *Ibid.*, p. 3573, Honorable George P. Graham.
[5] *Ibid.*, May 18, 1916.
[6] *Ibid.*

practically made the Government responsible for the success of the enterprises.

After considerable debate, the railways were granted further aid and a Royal Commission was appointed by Order-in-Council on July 13, 1916, to study the railway situation and report with the least possible delay. The opinion of leading members of Parliament was unanimous that the hitherto prevailing system of Government doles and guarantees had to be stopped and be replaced by a constructive governmental policy toward the railways. The Commission consisted of Alfred Holland Smith, President of the New York Central Railroad, (Chairman), Sir Henry Lumley Drayton, Chief Commissioner of the Board of Railway Commissioners for Canada, and William Mitchell Acworth, a noted English authority on railways.[7]

In the performance of their duties the Commissioners had a physical valuation made of the Canadian Northern and Grand Trunk Pacific Railway companies, under the supervision of Professor Swain of Harvard University. The Commissioners filed their report in the summer of 1917 and were in agreement as to the need for constructive aid to bring the railways through the trying times they were experiencing, but differed as "to the extent of government help desirable and as

[7]The subject matter referred to the Commission was as follows:

(1) The general problem of transportation in Canada.

(2) The status of each of the three transcontinental railway systems, namely, the Canadian Pacific Railway System, the Grand Trunk System (including the Grand Trunk Pacific Railway and the Grand Trunk Railway and their several branches) and the Canadian Northern Railway System, having special reference to the following considerations:
  - (a) The territories served by each system and the service which it is capable of performing in the general scheme of transportation;
  - (b) physical conditions, equipment and capacity for handling business;
  - (c) methods of operation;
  - (d) branch lines, feeders and connections in Canada;
  - (e) connections in the United States;
  - (f) steamship connections on both oceans;
  - (g) capitalization, fixed charges and net earnings having regard to (1) present conditions, and (2) probable future development with increase of population.

(3) The reorganization of any of the said railway systems, or the acquisition thereof by the State; and in the latter case the most effective system of operation, whether in connection with the Intercolonial Railway or otherwise.

(4) Generally speaking, all matters which the members of the Commission may consider pertinent or relevant to the general scope of the Inquiry.

to the increase and character of government liability and interest now and for the future."[8] Consequently there was a majority report of Sir Henry L. Drayton and Mr. W. M. Acworth popularly called the Drayton-Acworth Report, and the minority report of Mr. A. H. Smith.

Both reports stressed the over-development of Canadian railways, showing that the increase in mileage had far outstripped the growth of population. In 1901, with a population of 5,370,000, Canada had 18,100 miles of railway; a mile of railway for every 300 inhabitants. By 1916 the population had grown to 7,500,000, while railway lines in operation or under construction had increased to 40,584 miles; a mile of railway for every 185 inhabitants. In comparison it was noted that the United States had 400 inhabitants per mile of railway.

To be sure the geographical characteristics of the country, particularly the great distance separating the productive territories of the West from the consuming markets in the East and abroad, made railway development essential for the settling of the country and the exploitation of its resources. Therefore the people of Canada, through their governments, were liberal in promoting railway construction in advance of profitable operation on a commercial basis. Great grants of land were given to the two principal systems in the West. Cash subsidies were voted liberally, as shown by the fact that up to June 30, 1916, the Dominion Government had aided railways in this manner to the amount of $116,000,000, the provincial governments, $30,000,000 and municipalities $12,000,000.[9] They had also aided private companies by direct loans, by purchase of securities and by guarantees. In addition, a certain amount of public railway construction had been undertaken; the Intercolonial, National Transcontinental and Hudson Bay railways by the Dominion Government, the Temiskaming and Northern Ontario by the Ontario Government and the Pacific Great Eastern by British Columbia.

[8]Railway Inquiry Commission, *Report,* 1917, p. viii.
[9]*Ibid.,* p. xiv.

Railway development in Canada down to 1917 was shown to have gone through three distinct phases. In the first period the Grand Trunk came into existence almost entirely without government aid. In the second, the Canadian Pacific was organized for the purpose of completing a transcontinental line, part of which had already been constructed as a federal government project. When it was decided to have the road completed by a private company, the Government turned over to the Canadian Pacific, free of charge, its surveys and the road already constructed at a cost of $37,785,000.[10] Since the undertaking was large, the population sparse, and the prospect of profit remote, the Government also extended to the company generous aid in the shape of land grants, cash subsidies and loans, the last being repaid. The cash subsidies paid by the Dominion and Provincial Governments to the Canadian Pacific and its subsidiaries amounted to $67,000,000. Land grants from the Dominion and Provincial Governments amounted to 28,000,000 acres, of which 16,541,000 had been sold by June 30, 1916. Further, the Canadian Pacific had government aid the value of which could not be determined, such as the right to take public land free for railway purposes, certain exemptions from taxes and the admission of original construction material free of duty. "As a result of this support and assistance, coupled with the rapid growth of Canadian population and wealth, and its own wise and prudent management, the Canadian Pacific has 'made good.' It has raised, without further government help, hundreds of millions of new capital. Its common stock, which carries control of the property represents an average of $112.50 of actual cash put into the property for every $100 of nominal face value. The shareholders have for years received handsome dividends; they have, out of operating surplus, invested $100,000,000 in subsidiary undertakings; they have realized $68,000,000 net from land sales, and they still possess land conservatively valued at $119,000,000. Against no part of this [invested surplus] has any capital been issued. To-day the Canadian Pacific stands as

[10] *Ibid.*, p. xvii.

one of the wealthiest and financially strongest railway companies in the world; fully able to raise, on its own credit and on the most favorable terms, all the new capital which will be required to meet the demands for new development that the future will bring."[11]

The Canadian Northern and the Grand Trunk Pacific belonged to the third period of railway development. In May, 1903, a Royal Commission on Transportation had been appointed[12] "to consider questions affecting transportation of Canadian products to the markets of the world through and by Canadian ports, with a view of placing the Canadian producer in a position to compete, and compete successfully, through all Canadian ports, with the producers and exporters of other countries." The report of this Commission reflected the buoyant outlook of the times. All kinds of transportation projects were recommended, including the extension of the Grand Trunk Pacific to Moncton, New Brunswick. Commenting on this report, Mr. Smith, of the Commission of Inquiry in 1917, said:[13]

"It would now seem that there could not have been in sight enough traffic to justify the extensive development here recommended. However, many of the things proposed in this report have been done, and other ambitious schemes not here mentioned have since been brought out. The point in mind is that without making a specific declaration of the fact, as far as I know, Canada's policy for years appears to have been to promote the public welfare by means of building or aiding in the building of transportation lines throughout the Dominion.

"It is unfortunate that Canada did not have a policy of regulation in this period which could have prevented needless duplication of lines and facilities. Competing lines have been built where effective regulation could have saved a large part of the investment, while completely satisfying every reasonable and proper need for service. Instead of co-ordina-

[11] *Ibid., p. xx.* The indicated value of land owned by the Canadian Pacific included the value of unsold irrigated lands and purchased lands, in addition to the current value of subsidy lands.

[12] *Ibid.*, p. xciii.

[13] *Idem.*

tion and conservation under government supervision, railways were permitted to duplicate plant in fields not yet productive enough to support the one; the Government, on the other hand, was, in one way or another, aiding both projects, if it had not indeed itself promoted either or both projects. Very naturally, it has not and could not have obtained the benefit which should have followed a correct programme of government aid. The policy of government aid makes the need for regulation of railway building more necessary even than where private capital is depended upon, for in the latter case the proposal must at least have a promise of commercial success before capital can be induced to come in and give it support. To the absence of such regulation must be charged responsibility for no small part of the railway problem of to-day."

The remainder of this section of Mr. Smith's report dealing with the effect of the indiscriminate policy of government aid upon the three principal systems merits quotation.[14]

"The Grand Trunk Railway Company, feeling no doubt that its own traffic field had been invaded by the government-aided Canadian Pacific, desired in turn to enter the promising western territory. Accordingly, it proposed to build a line from North Bay to the Pacific coast. Public aid was required and granted in a way to ensure the building of the road. If any serious thought was given to co-ordinating existing or proposed roads, and to utilizing them for the public good, it did not find public expression in any constructive way. The Grand Trunk Railway Company evidently felt confident in the success of its plans, for it pledged its own credit in aid of the extension, and entered into contracts which it now finds quite beyond its ability to carry out.

"Canadian Northern interests, directed by Mackenzie, Mann & Co., who since an early date had been operating local lines in Manitoba, seized the opportunity afforded them for expansion and rapidly extended their rails throughout the Prairie region. The records show that the Canadian Northern had a large mileage on the prairies before the projection of

[14] *Ibid.*, pp. xciv-xcv.

the Grand Trunk Pacific; so that when the extension plans of the Grand Trunk became a part of the national policy, as they did become, the Canadian Northern was added to the number of those who wanted to own a transcontinental system and one as fully complete and self-contained as was that of the Canadian Pacific. Hence, we find two new companies, both built largely upon public credit, striving for first place in a field which, as for transcontinental transportation, or even as for connecting Eastern and Western Canada, was largely occupied. Besides having the Great Lakes waterway there could have been barely enough business to support one additional line, and that only by the exercise of economy in operation and prudence in investment.

"The Canadian Pacific, enjoying splendid credit, with adequate powers and resources, and keenly alive to the possibilities of losing business to competitors challenging its supremacy everywhere, then entered the contest by undertaking to build new lines in an effort to protect its sources of revenues.

"The stimulation felt throughout the country by the influx of settlers and by the importation of so much new capital not only created a boom, but it quite naturally affected prices for labour and materials, sending these soaring; the increased prices in turn contributed largely to the higher costs which are now reflected in the construction accounts of the new roads.

"This brings us fairly to a recognition of the fact that while the policy of public aid to railways had originally been founded on the urgent need for transportation to open up a new country, to develop its resources, and to unify Canada commercially and politically, it was carried far beyond the limits warranted by the original exigency. It appears to me that the responsibility is as much the Government's as the private companies'. Without enabling legislation and the extension of Government credit from which all received their essential support, the companies could not have expanded and overbuilt.

"This policy, in so far as it aimed at the development of Canada, appeals to me as sound, and fully justified in its inception, but it needed to be supplemented by some form of

supervision that would have insured to the people the benefits of that policy without the losses that have followed the effort to assist development indiscriminately.

"The situation must be faced as it exists. It is not possible to undo what has been done; the money which has been spent cannot be recalled. The immediate and obvious thing to do is to adopt a constructive and discriminating programme, first, for correcting the conditions which necessitate continuing loss and waste, even where that would require the abandonment of useless property, and, second, for controlling new construction. The scrap heap is frequently the most economical disposition available for inefficient plant and machinery."

RECOMMENDATIONS OF THE MAJORITY REPORT

In view of all of the circumstances, Commissioners Drayton and Acworth recommended that the people of Canada assume control of the three companies, the Canadian Northern, the Grand Trunk Pacific and the Grand Trunk. They considered the possibility of allowing the properties to go through receivership only to reject it on the ground that it was too drastic a solution of the problem. In their opinion the security holders of the companies had a moral claim on the Government that could not be disregarded without danger to the credit status of the country. The securities of the Canadian Northern and the Grand Trunk Pacific had been sold mainly in London, and subscribers to these securities had unquestionably been influenced by the fact that the companies had been backed by the Canadian Government. "Technically, of course, the Government has no responsibility beyond that of meeting its guarantees. But if the two companies went into the hands of receivers, we cannot doubt that investors outside Canada would believe, however erroneously, that the Dominion Government had treated them badly, and that the result would be serious injury to the credit of the Canadian Government, and indeed of all Canadian enterprises. And this result is one that, putting it on pecuniary grounds alone, the Canadian people should in their own interest spend a good deal of money to avoid. We therefore consider that Canada should assume the respon-

sibility of seeing that the interest on these securities is met. This responsibility is in our opinion unavoidable. But we recognize that it is serious."[15]

POSSIBLE METHODS OF PUBLIC CONTROL

If the embarrassed railways were to be taken over by the Government, there was still the problem of determining how they should be acquired and through what agencies they should be operated. The Commissioners strongly urged that there should not be direct government operation. On this subject they said:[16] "In our judgment it is not in the interests of Canada that the operation of its railways should be in the hands of the Government. We know of no country in the world, where a democratic State owns and operates its railways, in which politics have not injuriously affected the management of the railways and the railways have not had an injurious influence upon politics."

Another proposal, that was considered and rejected, is rather significant in view of the present popular interest in the question of unified railway management in Canada. This was the suggestion that the Canadian Pacific should operate all of the railways as a partner of the Government. Respecting this solution the Commissioners said that they were convinced that the Canadian people, having spent or guaranteed hundreds of millions of dollars, largely with the object of breaking a private monopoly, would never consent to the re-establishment of a still greater monopoly, even though the Government were a partner in the concern.[17] Subsequent events have demonstrated that it would have been much better for the country to have taken the risks of monopoly in 1917 instead of following the policy that was recommended by the Commission. To be sure, as a matter of principle the assurance of a progressively efficient service is greater with competition than with monopoly. But it is now evident that the cost of developing an efficient competitive railway system out of the properties

[15] *Ibid.*, p. xlvii.
[16] *Ibid.*, p. xlv.
[17] *Ibid.*, p. xlviii.

that were taken over by the Government far outweighed the theoretical dangers of monopoly. The economies of a single unified railway system, administered by the unusually capable management of the Canadian Pacific, in partnership with the Government, would have saved the country the loss of hundreds of millions of dollars in deficits and unnecessary capital expenditures. Moreover, while it would not be accurate to say that there would have been no risk in creating a monopolistic railway administration, it is unlikely that the past experience with monopoly, which antedated regulation,[18] would have been duplicated.

The recommendations of the Drayton-Acworth report called for the assumption of control of the Grand Trunk, the Grand Trunk Pacific and the Canadian Northern by the Government of Canada.[19] They were to be united into one system, to be called the Dominion Railway Company. This company was to own the stocks of the acquired companies, and to maintain the rights of bond and debenture holders undisturbed. It was also proposed that the Intercolonial and the National Transcontinental lines, then operated by the Minister of Railways, be turned over to the Dominion Railway Company for operation as part of the unified system. The operation and management of this system was to be vested in a board of trustees on account of and for the benefit of the people of Canada, on a commercial basis and undisturbed by politics. The trustees (five in number) were to be named in the first instance by the Act of Parliament creating the board, three of the five to be men of railway experience, while one of the others was to be selected on the ground of experience in financial and business affairs and the other as possessing the confidence of the railway employees. The trustees were to serve for periods of seven years and be eligible for renomination and reappointment. Vacancies on the board were to be filled by appointment by the Governor-in-Council on the nomination

[18]Regulation by the Board of Railway Commissioners was instituted in 1903. The present powers of the Board are prescribed in the Railway Act, Revised Statutes of Canada, 1927, c. 170.

[19]Railway Inquiry Commission, *Report,* 1917, pp. li-liii.

of a majority of the remaining trustees. Thus the board was to be an independent public authority.

Commissioners Drayton and Acworth strongly emphasized their belief that democratic governments are unsuited to own and operate railways. They recommended indirect public operation for Canada only because of the wholly exceptional circumstances existing there. On this point they said:[20] "Our personal belief is strong that, in normal circumstances, railway enterprise is a matter best left in private hands, subject to proper regulation by the government. Were we asked to advise in the case of the railways of the United Kingdom or the United States, which have been constructed by private companies, with money found by private investors, we should give effect to this belief. We go further and consider that, in the case of the Canadian Pacific Railway, as to which the Government does instruct us to advise, the fact that it received large help from public sources in its early days, is not any reason why the existing status of the company should now be disturbed. This company has carried out its bargain . . . We believe that Canada has had good value for what it has given . . . We have no hesitation, therefore, in coming to the conclusion that the status of the Canadian Pacific Railway should be left undisturbed. But in the case of the Canadian Northern, the Grand Trunk and the Grand Trunk Pacific, the circumstances are not normal. These companies have broken down. We see no way to organize new companies to take their place. Their only possible successor is in our view a public authority. We are confronted with a condition and not a theory."

Finally, the commissioners laid great stress on the point that the functioning of the board of trustees be entirely free from political influence. The board was to be a "permanent self-perpetuating body" and "should not assume or even be suspected of assuming a political complexion." The Dominion Railway Company was to be subjected to the jurisdiction of the Board of Railway Commissioners to the same extent as any private company.

[20]*Ibid.*, pp. li-lii.

Under the Drayton-Acworth plan no new financing was necessary except for the purpose of providing for existing floating indebtedness and required increases in rolling stock and facilities. The Government was simply to acquire the stockholders' interests. In so far as the stockholders' equities were concerned, the report suggested that they be met by the payment of such annual portions of the earnings of the system as might fairly be allowed, having regard to the existing financial positions of the companies and their potential earning power. The exact proportion was to be determined by arbitration if necessary.

These, then, were the main findings of the majority report: (a) that the Dominion Government assume financial responsibility and unite all the railways of Canada except the Canadian Pacific Railway into a single system, in the hands of a company to be called the Dominion Railway Company; (b) that the Government must not own directly and must not operate this system, and (c) that the management should be on a commercial basis, administered by an independent board of trustees, politically undisturbed and self-perpetuating.

MINORITY REPORT

Mr. A. H. Smith, the chairman of the Commission, was unable to join his colleagues in their recommendations. In this connection he said:[21] "My friends seem to avoid government ownership and operation, in fact condemn it as inadvisable, but propose a plan which contains so many elements of danger in the direction which is sought to be avoided that I am unable to join them." He did not see by what means one parliament could bind its successors to a given policy, especially in so simple a matter as changing the organization of a government board, and judging from experience he pointed to the probability of a permanent burden being added to the annual government expenses.

He reviewed the salient facts concerning each company as follows:[22]

[21] *Ibid.*, p. ci.
[22] *Ibid.*, pp. cii-ciii.

"The Canadian Pacific is amply able to take care of itself. It can and does provide competition with the other railroads. In order to be most serviceable to Canada, it should be continued, subject only to such equitable regulation as is accorded to all lines.

"The Grand Trunk succeeded in the east and failed in the west. The Canadian Northern succeeded in the west and was jeopardized by its eastern expansion.

"There is extensive duplication of lines in the West; the unsuccessful Grand Trunk Pacific lines are found among the successful Canadian Northern lines. Public policy demands the unification of these lines, for great economies could be thereby accomplished.

"There is extensive duplication in the East; the new Canadian Northern lines among the older lines of the Grand Trunk proper. Great economies in proposed investment and operating expenses await the joint working of these properties.

"There is wasteful duplication in the connecting region between North Bay and Winnipeg where the Canadian Northern line parallels the government line. Economy awaits the joint working of these lines."

Consideration of all these phases of the problem led him to recommend the following remedies:

"Let the Canadian Pacific Railway alone; let the Grand Trunk operate the eastern lines now held by that company and the Canadian Northern; let the Canadian Northern operate the western lines, now held by the company and by the Grand Trunk Pacific system; let the government operate the connections or procure their operation by private companies; all of which should be done under arrangements that are equitable and yet look to the not distant day when the country will have survived the war and resumed its prosperous growth."

His suggestions for carrying out these remedies involved the creation of a board of trustees to act for the Government in accomplishing the proposed reorganization. The Grand Trunk was to be required to lease to the board of trustees the railway properties of the Grand Trunk Pacific at a rental amounting to the net annual fixed charges, and the Grand

Trunk was to be relieved of its obligation to lease the National Transcontinental. This would provide the necessary relief for the Grand Trunk from its entangling alliances. The Grand Trunk was, however, to be required to take under lease the Canadian Northern lines east of North Bay and Parry Sound, and pay as a rental the net fixed charges of the properties.

The Canadian Northern was to lease its line north of the Great Lakes, east of Winnipeg, to the board of trustees. It was also to take under lease the lines of the Grand Trunk Pacific, thereby confining its operations to the West. The rental payment for the Grand Trunk Pacific lines was to be the net annual fixed charges against the properties, although these charges were to be borne by the Government until seven years after the end of the War.

The lines of the Canadian Northern and the National Transcontinental between Winnipeg and North Bay were to be leased by the board for a term of twenty-one years to either the Canadian Northern or the Grand Trunk on the best terms that could be arranged. It was suggested that either the Government or the lessee should build a connecting link of about thirty miles near Longlac, Ontario, to provide for the better working of the two lines.[23] Finally it was recommended that any of the leases should be subject to termination by the Government or the companies after ten years.

The acceptance of this plan by the Government would have altered the whole future course of Canadian railway development. In all probability it would have saved the country a great many millions of dollars, although that must remain in the realm of surmise. Whether it would have relieved the Government of responsibility in the future for anything other than its actual guarantees of existing securities it is difficult to say and in the circumstances unimportant. The following chapters will show that the Government, in successive steps, finally adopted the essential features of the Drayton-Acworth plan, with one very significant exception, having to do with the tenure of office and independence of the board of trustees.

[23]This connection was built in 1923 between Longlac and Nakina.

Consideration will be given to the detailed working out of the Government's policy, as well as to the problems of administering the largest experiment in nationalization yet undertaken in a democratic country.

CHAPTER V

THE NATIONALIZATION OF THE CANADIAN NORTHERN

IF the retention of the National Transcontinental on its completion in 1915 and its operation under Intercolonial management was the first step toward the development of a large state system, the purchase of the Canadian Northern in 1917 was the second step. The proposal to nationalize the Canadian Northern was made by the Government on August 1, 1917, when it announced its intention of purchasing the outstanding stock of the railway company, amounting to $60,000,000 par value, at a price to be fixed by arbitration.[1] The company was experiencing great difficulty in attracting new capital to complete its system, and by reason of a failure to earn all of its fixed charges was on the verge of receivership. Furthermore, the Drayton-Acworth report had recommended that no further aid be granted to the Canadian Northern while it was privately owned and controlled, and the Government had concurred in this recommendation.[2]

There was much criticism, however, of the method pursued by the Government in assuming control, as there had been of its policy in embarking upon a program of nationalization without a definite mandate from the people.[3] The Drayton-Acworth report had estimated that no value attached to the common stock of the Canadian Northern, and subsequent operating results have more than borne out that conclusion.

It had recommended that the Canadian Northern shareholders be permitted to retain a moderate portion of their common stock.[4] However, in view of the Government's an-

[1]House of Commons Debates, Canada, August 1, 1917, pp. 4018-22. This was exclusive of the $40,000,000 of common stock which the Government already owned.
[2]*Monetary Times,* August 3, 1917, p. 9.
[3]House of Commons Debates, Canada, 1917, pp. 4026-7.
[4]Railway Inquiry Commission, *Report,* 1917, pp. lxii-lxiii.

nounced intention to acquire at a later date the Grand Trunk system, and consolidate all of the lines, this would have been impracticable. It was far better to acquire the entire stock interest outright and avoid complications later.

The Act providing for the purchase of the Canadian Northern capital stock required the appointment of three arbitrators. They were to determine the value of the stock acquired, subject to an appeal to the Supreme Court of Canada by either the Government or the owners of the stock in the event of the failure of the arbitrators to arrive at a unanimous decision. Under the Act the arbitrators were allowed absolute freedom as to their methods of valuation, with the exception of the following instruction:[5] "In determining the value of the said six hundred thousand shares, the arbitrators, should they regard it as expedient to take into consideration the reproduction cost of the Canadian Northern Railway System, shall not include therein the increase in value, due to war, of labor, materials, equipment or of any property." This may or may not be taken to mean that the Government believed reproduction cost to be one of the factors for consideration in valuing the common stock of a railway property. At any rate it is significant in view of the attitude of the majority arbitrators in the Grand Trunk arbitration which is discussed in a later chapter.

Considering the extent of the liabilities, in excess of its own guarantees, that the Government assumed in taking over the Canadian Northern, the willingness of the Government to arbitrate the value of the remaining shares of stock was subject to criticism on the ground of undue liberality. It was known that the system would require the further expenditure of from seventy to one hundred million dollars to round out its facilities, and that for several years it would fail to earn all of its fixed charges. Moreover, by the terms of the Canadian Northern Railway Guarantee Act of 1914,[6] the Government had provided for its own protection in the event of the failure of the Canadian Northern to meet its obligations.

[5]Statutes of Canada, 7-8 George V, c. 24, Sec. 4, sub-sec. 2.
[6]Statutes of Canada, 4-5 George V, c. 20.

Under this Act the Government guaranteed a $45,000,000 issue of bonds of the Canadian Northern to enable it to complete its system. By agreement the Government received $40,000,000 of the common stock of the Canadian Northern out of a total issue of $100,000,000. The Act also provided that in the event of any default by the Canadian Northern on its securities, the Government had the right to appoint the boards of directors of the various companies in the system, such powers to continue as long as any securities were in default.[7] Finally, in the event of continuing default the Government could foreclose on the equity of redemption of the properties and thereby become the sole owner of the system "on such terms and conditions (if any) as Parliament may prescribe."[8] Since the Mackenzie and Mann interests claimed that the trials of the railway were but temporary and were due to the War and that the excess of assets over liabilities was about $85,000,000, the Government evidently felt that arbitration was necessary to forestall a charge of confiscation.

The arbitration board was set up early in 1918. It consisted of Sir W. R. Meredith, Chief Justice of Ontario, representing the Government, Honorable Wallace Nesbitt for the stockholders (Mackenzie and Mann) and the Canadian Bank of Commerce, and Justice R. E. Harris of Nova Scotia as the neutral arbitrator. Then followed lengthy public hearings, at which an imposing array of legal, financial and railway experts testifying on behalf of the Government or Mackenzie and Mann lent color to the proceedings.[9] The whole history of the railway from the beginning of its development was traced by those who had been associated with it from the outset. Great differences of opinion were expressed as to the future prospects of the system. The general manager of the Canadian Northern, D. B. Hanna, who was afterwards retained by the Government as President of the Canadian National, claimed that the railway only needed time to develop its im-

[7] *Ibid.*, Sec. 22.
[8] *Ibid.*, Sec. 24.
[9] Canadian Northern Arbitration, *Evidence*. There is a complete set in the archives of the Canadian National Railways.

mense potential resources, and he placed the value of the stock in question at $30,000,000. He traced the growth of the system in detail, and showed that the Canadian Northern had placed on the map 551 towns and villages where before there was nothing but plains.[10] On the other hand, witnesses for the Government, using elaborate statistical exhibits, contended that the Canadian Northern on the basis of proper accounting had had real deficits for several years, and that this condition must necessarily continue, so that the common shares had no value.

The unanimous award of the arbitrators was made on May 26, 1918.[11] It declared that the value of the outstanding stock (other than that already owned by the Government) was $10,800,000. The arbitrators announced that in computing the surplus of assets over liabilities they had adopted the report of Professor Swain as to the reproduction cost of the physical property, based on pre-war prices, and also his estimate of depreciation. After a careful examination, they found the surplus of assets over liabilities "on a conservative basis" to be not less than $25,000,000, as compared with the Government's estimate of $22,000,000 and the company's figure of $85,-000,000. They pointed out that while the surplus of assets over liabilities is "an element for consideration, . . . it is not conclusive as to the value of the stock of a company." The element that was more important than any other in their estimation was that of prospective earning power. They showed, therefore, that in making their award they gave careful attention "to the past history of the company, its earnings and expenditures, its financial position at the time of the award, the location of its lines, and their construction, the other railways already existing in competition, the rate of interest on the funded and other debts of the company and the probable future growth of the population and business of the country."[12]

According to the *Canadian Annual Review of Public Affairs,*

[10] *Ibid.*, pp. 407, 427, 483, 594-6, 610.
[11] *Monetary Times,* Vol. 60, May 31, 1918, p. 38. Also *Commercial and Financial Chronicle,* Vol. 106, p. 2344.
[12] *Monetary Times, loc. cit.*

financial opinion on the whole considered the award reasonable, although it reported that another element of public opinion could be summarized in the words of the *Grain Growers' Guide*:[13] "It is doubtful if they (Mackenzie and Mann) are entitled to a red cent. It is true they built a railroad, but anybody could do that if they had money enough!" On the basis of subsequent operating results of the Canadian Northern system, it is evident that those who claimed that the stock had no value were closer to the truth than were those who believed that the award was reasonable.

Some mention may be made, at this point, of the position of the Canadian Northern income debenture stock (due 1930). Since the Government had purchased only the common stock of the company, the position of the other securities remained unchanged. Accordingly, as the return on the income debentures was contingent on available net earnings after other charges, nothing had been paid on them since 1915. In 1927 a committee of the income debenture holders made a claim for consideration to the Canadian National administration. It contended (1) that the holders of the income debentures had an indisputable claim to a statement of earnings of the Canadian Northern Railway system, separate from the rest of the Canadian National system;[14] (2) that a statement should be given to the committee with regard to the ranking of the income debentures compared with the government advances to the company; (3) it queried whether the directors were securing efficient operation by the existing system of routing traffic.[15] The work of the committee met with success, for, in November 1927, an agreement was made for the retirement of the issue in May 1928, at 94 per cent of par value.

Having acquired control of the Canadian Northern, the Government now had to decide how it should be operated, in relation to the other government railways. In the House of Commons on May 15, 1918, Sir Robert Borden, the Prime Minister, announced the Government's railway policy in the

[13] *Canadian Annual Review*, 1918, pp. 532-3.
[14] No separate report has been published since 1922.
[15] *Monetary Times*, Vol. 78, May 27, 1927, p. 15.

following terms:[16] "We do not intend to operate the Canadian Northern Railway System directly under a department of the Government; it is our intention to operate it for the present through the corporate machinery by which it has been operated in the past. There will be a reconstituted board of directors. We shall endeavor to get the best men we can and we shall not interfere with them. We shall leave the administration and operation of that road to be carried on absolutely under that Board of Directors and we shall use every means available to the Government . . . in order that anything like political influence, political patronage or political interference, . . . shall be absolutely eliminated. The Government also has under consideration the question as to whether it may not be possible in the immediate future to bring the Transcontinental Railway . . . and the Intercolonial Railway, and the Prince Edward Island Railway, . . . under corporate management."

The Railway Inquiry Commission of 1917 had strongly urged against the direct government operation of railways in Canada by a Minister of the Crown. The Intercolonial had been operated in this manner from the outset, with the result that political considerations and influences had played a considerable part in its administration. Mr. Acworth a few months after serving on the Railway Inquiry Commission in Canada gave evidence before the United States Senate Committee on Interstate Commerce and presented a strong case against direct government operation. His closing remarks, in the nature of a summary, were as follows:[17] "The essential lesson of the history of government ownership of railroads may be said to be this: It is impossible to obtain satisfactory results on government railways in a democratic State, unless the management is cut loose from direct political control. Neither Australia nor any other country with a democratic constitution, perhaps an exception ought to be made of Switzerland, has succeeded in maintaining a permanent severance . . . It is easy

[16]House of Commons Debates, Canada, May 15, 1918, p. 1999.

[17]Acworth, W. A., "Historical Sketch of Government Ownership of Railroads in Foreign Countries," United States Senate Committee on Interstate Commerce, *On Extension of Tenure of Government Control of Railroads,* 1919, Vol. 2, Appendix A, p. 1262.

to see why this happens. The railways belong to the people. It seems, therefore, to the ordinary citizen only right and natural that parliament should control the management of the people's railways. And yet facts are stubborn things; and the facts show that parliamentary control has meant running the railways, not for the benefit of the people at large, but to satisfy local and sectional or even personal interests . . . Some day, perhaps, having learned wisdom by experience, a parliament and a people may recognize that management for the people is not necessarily management by the people; that there are other branches of government, besides the judicial branch, unsuited for popular interference, and may establish a permanent state railway organization, with its own board of directors, with its own separate budget, and entirely independent of parliamentary control, but controlled like any private company . . . And then the main objection to government railways in a democratic State will have lost its force. But hitherto no parliament and no people have recognized this fact, even though it stands out abundantly clear on the pages of railway history."

Mr. Acworth had tried to embody this feature of a permanent state railway organization in Canada, not because he was in favor of government ownership, but because he could see no other way to solve the existing difficulties in Canada. Unfortunately his suggestion regarding the permanency and responsibility of the board of trustees was not followed by the Government, and it required the experience of the next fifteen years to demonstrate the need for a new and different relationship between the Government and the government railway system.

The policy adopted by the Government for the administration of the Canadian National Railways was mid-way between the previous policy of direct ministerial control of its railways and a policy of administration by independent trustees. When the purchase of the Canadian Northern was consummated in 1918, the Government appointed a small board of directors, consisting for the most part of able business men, to manage the property "free from political influence or interference." Mr. D. B. Hanna, who had managed the Canadian Northern

from the beginning of its history, was retained as President of the road. Later in the same year the Government entrusted the management and operation of the Canadian Government Railways to the Canadian Northern board. Then in June 1919, Parliament passed the Canadian National Railways Act, providing for the administration of all railways that had been or might be acquired by the Government, under a Canadian National Railways Board, to be appointed by the Governor-in-Council.[18]

THE CANADIAN NATIONAL RAILWAYS ACT

The purpose of the Act was to provide for the consolidation of all the lines which were owned, had been acquired or might be acquired, by the Government, into one operating unit under a centralized administration.

It provided that the directors of the company, not less than five nor more than fifteen, were to be nominated by the Governor-in-Council. They were to hold office from one annual meeting to another or until their successors were appointed, unless removed by the Governor-in-Council for cause, and upon any vacancy occurring the Governor-in-Council could fill the vacancy by appointing a successor.[19]

The Governor-in-Council was empowered to entrust to the company the management of any lines of railway or any other properties "which may be owned or controlled by the people," upon such terms and subject to such regulations and conditions as the Governor-in-Council may from time to time decide, "such management and operation to continue during the pleasure of the Governor-in-Council, and to be subject to variation or termination from time to time in whole or in part by the Governor-in-Council."[20]

If any railway company, whose stock or controlling interest had been previously or should be acquired by the people, might be conveniently operated by the Canadian National Railway

[18]Statutes of Canada, 9-10 George V, c. 13.

[19]Canadian National Railways Act, Statutes of Canada, Chapter 13, 1919, Sections 1 and 2. All references are to the original Act, which, however, has been revised in minor aspects from time to time; for example, see Revised Statutes of Canada, 1927, Chapter 172.

[20]*Ibid.*, Sec. 11.

Company, the Governor-in-Council could transfer such stock or any part of it to the company, to exercise the voting power thereof, upon such terms and conditions as the Governor-in-Council from time to time determined.[21]

Actions, suits or proceedings against the company could be brought just as in the case of any private company.[22]

All deficits in the operation of the Canadian Government Railways proper were to be paid out of the consolidated revenue fund of Canada, and in the event of surplus existing at the close of any fiscal year, this surplus was to be paid into said fund.

An important section from the standpoint of the competitive relationship of the National system to the Canadian Pacific was that relating to the power to construct new lines. "With the approval of the Governor-in-Council and upon any location sanctioned by the Minister of Railways and Canals, the company may from time to time construct and operate railway lines . . . in respect to the construction whereof . . . Parliament may hereafter authorize the necessary expenditure, or the guarantee of an issue of the company's securities."[23] It is important to note that when a private company obtains a charter to build a railway line or a branch, it has to have the plans and general location approved by the Board of Railway Commissioners.[24] As shown in Chapter IX, the construction of new railway mileage in Canada is very inadequately controlled.

Except with respect to the location of new lines, the Act provided that the Canadian National (including the Canadian Government Railways) was to be subject to the control of the Board of Railway Commissioners and to the provisions of the Railway Act.[25]

Finally, the Act empowered the Canadian National to issue securities in respect to its mileage, other than the Canadian Government Railways, to an aggregate amount of $75,000 per mile, including outstanding securities.[26]

[21] *Ibid.*, Sec. 12.
[22] *Ibid.* Sec. 15.
[23] *Ibid.*, Sec. 23.
[24] Statutes of Canada, 9-10 George V, c. 67, Sec. 166-182.
[25] Canadian National Railways Act, Secs. 13 and 14.
[26] *Ibid.*, Sec. 26.

CHAPTER VI

OPERATING RESULTS OF THE CANADIAN NATIONAL AND THE CANADIAN PACIFIC 1919-1922

THE first administration of the Canadian National Railways, from 1918 to 1922, functioned under very trying circumstances. The Canadian Northern and the former Canadian Government lines (the Intercolonial and the National Transcontinental) were combined for co-ordinated operation in the closing months of 1918, when railway operating costs had already begun to rise precipitously. This fact, together with the low traffic density of the system and a large amount of functionally duplicate mileage, produced a disheartening condition of operating deficits. During this period the Canadian National administration was in an almost perpetual state of reorganizing its personnel or its operations. Two years after the first co-ordination, a second reorganization of staff and rearrangement of service in western Canada was rendered necessary in September 1920, when the Grand Trunk Pacific lines were combined with the Canadian National. Despite operating advantages from these co-ordinations, the system continued to be handicapped with respect to facilities in the East until the Grand Trunk was added to the National railways in 1922. From the outset the directors of the Canadian National adopted the policy of building up the various lines owned by the Government to standards that would enable them to compete more favorably for traffic with the Canadian Pacific System. In addition to large capital expenditures, improved train services were established with a view to securing for the National System a greater participation in the movement of competitive traffic.[1]

[1]Canadian National Railways, *Annual Report,* 1921, pp. 8-13. These expenditures for rehabilitating the properties of the system had an important bearing on the high operating ratios of the National Railways during the period 1919 to 1922, as the retirement of structures and units and the generally improved standards of maintenance involved heavy charges to expenses.

The presentation of the operating results of the Canadian National Railways for the period 1919 to 1922 is complicated by the fact that the Grand Trunk Pacific Railway was not included in the system until September 1920. In addition numerous short lines in eastern Canada were acquired by the Government during the period and were added to the National System.[2] For purposes of analysis the operating results of the group of railways which constituted the Canadian National System in 1921 are set forth for the four years 1919 to 1922. The operated mileage of this group of railways on December 31, 1921, was as follows:[3]

		Miles	
Canadian Northern System:			
Steam lines	9774		
Electric lines	126		
		9900	
Canadian Government Railways:			
Intercolonial Railway	1670		
Prince Edward Island Railway	276		
Eastern Branch Lines	515		
National Transcontinental	2007		
Hudson Bay Railway	214		
		4682	
Grand Trunk Pacific System		2756	
Total Canadian National Railways			17,338

The past record of earnings of the lines thus comprising the Canadian National System should be noted. The Intercolonial as a matter of government policy had rarely in its history done more than cover its operating expenses. On the average its operating ratio (the ratio of operating expenses to operating revenues) had been slightly over 100 per cent, and for the year 1918 it was 107 per cent. The situation was even worse in the case of the National Transcontinental, since it served a practically virgin territory and for 1918 had an operating ratio of 125 per cent. Operating expenses for the year 1918 for the Canadian Government Railways as a whole, including the numerous small branch lines were 15.5 per cent in excess

[2] *Ibid.*, p. 13.

[3] Department of Railways and Canals, *Annual Report*, March 31, 1922, p. 5. The Grand Trunk Railway System in eastern Canada and the United States was not a part of the Canadian National Railways during the years 1919-22.

of operating revenues.[4] The Grand Trunk Pacific had not earned enough to pay its operating expenses since it was opened for business on January 1, 1916, and the Canadian Northern having extended itself too rapidly lacked the traffic necessary to support its far-flung system. While its operating ratio for 1918 was 93 per cent,[5] it increased in the following year to 112 per cent.

The very best that could be expected from an amalgamation of this group of railways was a certain amount of saving through co-ordination and a gradual improvement in the operating ratio in response to increased traffic. Two sets of circumstances postponed this desired result for two or three years. The first was common to all railways in Canada and the United States, namely, rapidly advancing costs which greatly exceeded the increases in rates granted to offset them. The second was applicable specifically to the Canadian National, namely, that there was a considerable amount of back maintenance and improvements which could not be deferred longer. Thus unusual expenditures for maintenance had to be made at a time when costs were at their peak.[6]

In the following analysis of operating and financial results for the period 1919 to 1922, no attempt has been made to give an exhaustive appraisal of the operations of the Canadian National Railways such as has been attempted with respect to the period 1923 to 1933 in Chapter VIII. There are several reasons why a complete analysis would not be worth while even if the necessary statistics were available. First, for comparative purposes, the period was too brief and too abnormal for a fair appraisal; second, the administration of the National railways was faced with the difficult task of uniting the operations of two competing railways, upon which a great many improvements as well as back maintenance had still to be made despite rising costs; third, while the railways under survey were combined for operating purposes, they were not unified into one co-ordinated system as they have been since 1922. For these

[4]*Op. cit.* March 31, 1919, p. 43.
[5]Canadian Northern Railway Company, *Annual Reports.*
[6]Canadian National Railways, *Annual Reports,* 1919-21.

reasons the period must be regarded simply as transitional, paving the way for the real test of government operation that was to follow when the lines of the Grand Trunk Railway rounded out the Canadian National System and put it on a comparable basis with the Canadian Pacific.

The operating results for the four years 1919-1922 for the companies grouped under Canadian National management are shown in the following table. The figures show gross operating earnings and expenses, operating ratio and total deficit after deducting fixed charges, for each railway in the group as well as for the group as a whole. The deficits for the Canadian Government Railways proper do not include any fixed charges, since the Canadian Government has never attempted to make the Intercolonial pay a return on the capital invested in it, and interest on this investment and on the investment in the National Transcontinental has never been charged in the railway accounts.

Income Results—Canadian National Railways 1919-22.[7]

	1919	1920	1921	1922
Gross Earnings				
Canadian Northern	53,562,177	66,695,399	69,088,474	60,679,033
Canadian Govt. Rys.	40,179,381	44,537,804	40,964,304	40,939,946
Grand Trunk Pacific	11,294,618	14,408,550	16,638,678	18,516,978
Total	$105,036,176	$125,641,753	$126,691,456	$120,135,957
Operating Expenses				
Canadian Northern	60,034,024	82,953,979	75,564,385	63,625,763
Canadian Govt. Rys.	47,728,206	54,987,680	46,551,603	43,436,668
Grand Trunk Pacific	17,587,567	24,543,064	20,668,370	22,809,844
Total	$125,349,797	$162,484,723	$142,784,358	$129,872,275
Operating Deficit	$20,313,621	$36,842,970	$16,092,902	$9,736,318
Operating Ratio				
Canadian Northern	112.08	124.38	109.37	104.85
Canadian Govt. Rys.	118.78	123.46	113.64	106.10
Grand Trunk Pacific	115.71	170.34	124.21	123.18
System	119.34	129.32	112.70	108.10
Deficit After Fixed Charges				
Canadian Northern	26,441,557	40,043,831	36,379,610	34,310,573
Canadian Govt. Rys.	7,548,824	9,432,055	6,010,756	2,910,658
Grand Trunk Pacific	15,014,164	18,029,174	14,283,568	13,882,066
Total Deficit	$49,004,545	$67,505,060	$56,673,934	$51,103,297

[7] Department of Railways and Canals, *Annual Reports.* The deficits of the Canadian Government Railways did not include any fixed charges.

The story of the huge operating and financial losses from the operation of this group of railways is told by the foregoing figures. After 1920 the operating deficits diminished considerably as indicated by the declining operating ratio, but the steady increase in fixed charges, representing in large part interest on funds advanced by the Government to pay past deficits, more than offset the operating improvement, and left an income deficit in 1922 greater even than that of 1919. The huge increase in the fixed charges of the Canadian Northern System during the four-year period is indicated in the following tabulation:[8]

FIXED CHARGES OF THE CANADIAN NORTHERN RAILWAY SYSTEM—1918-22.[9]

	1918	1919	1920	1921	1922
Interest due Public	$13,971,967	$13,030,336	$13,993,695	$17,595,708	$16,915,174
Interest due Government	3,926,280	6,939,374	10,326,261	13,224,208	15,796,372
Total Interest	$17,898,247	$19,969,710	$24,319,956	$30,819,916	$32,711,546

It is important to note the principal changes in the assets and liabilities of the Canadian Northern from December 31, 1918, to December 31, 1922. Investments and current assets were carried on the books of the company at $610,202,162 on the former date and at $729,509,648 on the latter, representing an increase in assets for the period amounting to $119,307,486. During the same period the funded and unfunded debt of the system increased by $261,514,950 of which $51,233,156 represented unpaid interest on advances from the Government. The difference between the increase in debt and the increase in assets is represented by the change in the profit and loss account and minor changes in other asset and liability accounts. A profit and loss surplus of $17,932,225 on December 31,

[8]The fixed charges of the Grand Trunk Pacific are not similarly shown because the published reports of the Grand Trunk Pacific were not consistent during the four years in dealing with fixed charges. The reason for this situation was the fact that under its guarantees the Government agreed to pay part of the interest on bonds of the Grand Trunk Pacific until 1923. Yet in the reports of the company this interest was charged in the income account in some years and not in others. There appears also to have been inconsistency in handling interest due the parent Grand Trunk Railway Company.

[9]Department of Railways and Canals, *Annual Reports.*

1918, was converted to a profit and loss deficit of $120,346,777 on December 31, 1922, making a change in the profit and loss account amounting to $138,279,002. Thus less than one-half of the increase in the liabilities of the Canadian Northern was represented by increased asset values. It will be seen that the practice of charging interest on debts incurred to pay operating deficits and fixed charges had the effect of increasing abnormally the annual interest charges of the system.[10]

The earning record of the Canadian Pacific System during the period under review presented a striking contrast to the record of the Canadian National.

INCOME RESULTS—CANADIAN PACIFIC RAILWAY COMPANY 1918-22.[11]

	1918	1919	1920	1921	1922
Gross Earnings	$157,537,698	$176,929,060	$216,641,349	$193,021,854	$186,675,036
Working Expenses (including taxes)	123,035,310	143,996,024	183,488,305	158,820,114	150,373,345
Operating Ratio	78.10%	81.39%	84.70%	82.28%	80.55%
Net Earnings	34,502,388	32,933,036	33,153,044	34,201,740	36,301,691
Fixed Charges	10,177,513	10,161,510	10,775,408	11,519,072	13,348,906
Surplus (after fixed charges)	24,324,875	22,771,526	22,377,636	22,682,668	22,952,785
Dividends[12]	21,427,277	21,427,277	21,427,277	21,427,277	21,427,277

The most interesting features of the foregoing figures are (1) the remarkable stability of the net railway operating revenues and (2) the relatively small increase in the operating ratio when prices reached their peak. In 1920 the Canadian Pacific, with its 13,402 miles of operated line, had $216,641,000 of gross operating revenues, compared with $125,642,000 for the Canadian National (as then constituted) with its 17,000 miles of line. The reasons for the difference in the net operating results of the two systems, in part at least, were the leaner

[10] Unexplainable inconsistencies in the published accounts of the Grand Trunk Pacific made it impossible to include figures for that railway in the above presentation. However, an explanation of the increased liabilities of the entire group of railways now comprising the Canadian National System for the period 1919 to 1933 is given in Chapter X.

[11] Canadian Pacific Railway Company, *Annual Reports*.

[12] These dividends were paid out of railway operations only. Further dividends were paid out of the Special Income Account representing net earnings from ocean and coastal steamship lines, hotels, telegraph, interest on deposits and investments, etc.

earnings per mile of the Canadian National, and the relatively heavy expenses for the rehabilitation of its properties.

A parliamentary committee appointed in 1921 to inquire into certain problems of the Canadian National Railways raised the question: Why should the Canadian National show such large deficits when the Canadian Pacific, subject to the same external conditions, paying the same wages and charging the same rates for freight and passengers, was able to pay all its expenses and fixed charges and have a good balance for dividend payments? The answer, given by the Vice-President of the Canadian National Railways in charge of finance, was as follows:[13]

(a) The Canadian Pacific ran through a well developed territory, while the Canadian National lines were in a large measure pioneer roads through sections which had only recently been opened up. Therefore the Canadian Pacific had a much larger volume of business, with a result that unit expenses of operation were less than in the case of the Canadian National.

(b) The Canadian Pacific Railway could concentrate its traffic in heavier train loads and in this way reduce the actual movement expenses. For instance, its average revenue freight train load in 1920 was 529 tons compared with 383 tons for the Canadian National. Similar advantages were found in the passenger business. The passenger density on the Canadian Pacific in 1920 was 132,223 as compared with 54,075 for the Canadian National. This was caused not only by the fact that the Canadian National Railway carried fewer passengers, but more particularly because the average journey on the Canadian Pacific Railway was almost double that on the Canadian National.

As a result of these conditions of more economical operation on the Canadian Pacific, its passenger train earnings per train mile in 1920 were $2.81 as compared with $1.73 for its competitor; while the freight earnings per train mile and per mile of road for the Canadian Pacific Railway were $5.50 and

[13]Appendix No. 4, Journals of the House of Commons, 1921, Proceedings of Select Standing Committee on the Canadian National Railways and Shipping, pp. 97-9, 111-14. It should be noted that this investigation concerned the Canadian National as it was then constituted, viz., excluding the Grand Trunk Railway System.

$11,073 respectively, and $3.76 and $5,673 for the Canadian National Railway.[14]

Analysis of the operating expenses of the two systems during the period shows that the Canadian Pacific was more able to curb the rising tide of operating costs than the Canadian National. Whether this was due to superior efficiency on the part of the Canadian Pacific, or to better judgment, or to the inherent advantage of efficient private operation over government operation must remain a moot question. For reasons already indicated the period was too brief and too abnormal to warrant an answer to such an important question. All that can fairly be attempted is a comparison of the trend of certain operating statistics so that the vastly different position of the two systems may be appreciated.

Beginning with the statistics for passenger traffic it will be noted that the four years showed a declining passenger trend. To meet the situation the Canadian Pacific reduced its passenger train mileage after 1920, but not enough to prevent the number of passengers per train mile from falling about twenty per cent. Despite rising costs and a declining passenger business the Canadian National increased passenger train mileage considerably in 1920. As a result its passenger train earnings per passenger train mile fell in 1920, although they increased materially in 1921. The disadvantage suffered by the Canadian National in comparison with the Canadian Pacific is clearly shown in the great difference in the passenger density of the two systems. In 1919 the Canadian Pacific had about two and one-half times the number of passenger miles per mile of road as the Canadian National, and a little more than two and one-third times as many in 1922. The disability of the Canadian National is also shown in its passenger train earnings per passenger train mile, which in 1920 were $1.71 compared with $2.81 for the Canadian Pacific, and in the small number of passengers per train mile on the Canadian National as compared with the Canadian Pacific.

[14]Proceedings of Committee, pp. 98-9, 186-9. For the purposes of this testimony the Canadian National figures did not include the results of the Grand Trunk Pacific. If they had been included the averages per mile of road, etc., would have been slightly lower.

Operating Statistics[15]

	Canadian National				Canadian Pacific			
	1919	1920	1921	1922	1919	1920	1921	1922
Passenger Train Mileage	11,920,000	13,323,000	12,701,000	12,238,000	20,411,000	20,538,000	18,932,000	18,777,000
Freight Train Mileage	18,360,000	20,988,000	18,650,000	18,473,000	19,995,000	24,336,000	18,828,000	22,330,000
Total Train Mileage[16]	33,634,000	37,808,000	34,669,000	33,656,000	42,349,000	46,720,000	39,407,000	42,709,000
Passengers Carried One Mile	915,174,000	841,637,000	714,748,000	689,392,000	1,763,605,000	1,718,085,000	1,361,768,000	1,250,197,000
Passenger Density	56,136	50,957	41.773	40,022	135,727	132,223	104,817	95,485
Passengers Per Train Mile	59.9	50.0	54.2	54.1	78.9	76.8	66.2	61.4
Tons Revenue Freight	22,100,000	25,089,000	21,259,000	22,426,000	25,103,000	29,920,000	23,711,000	27,745,000
Ton Miles Revenue Freight	7,801,000,000	9,221,000,000	8,998,000,000	10,091,000,000	10,927,000,000	13,857,000,000	10,637,000,000	12,785,000,000
Average Haul Revenue Freight	353	368	423	450	435	463	449	461
Revenue Freight Density	478,523	558,314	525,865	585,831	840,928	1,066,401	818,743	976,479
Average Tons Revenue Freight Per Train Mile	359.3	376.6	417.1	482.4	498.1	529.3	519.5	534.2
Freight and Passenger Train Earnings per Mile of Road	$6,067	$7,228	$7,169	$6,741	$12,898	$15,918	$14,055	$13,395
Passenger Train Earnings per Passenger Train Mile	$1.83	$1.71	$2.13	$2.00	$2.59	$2.81	$2.69	$2.36
Freight Train Earnings per Freight Train Mile	$3.27	$3.70	$4.38	$4.33	$5.00	$5.50	$6.21	$5.32
Average Operated Mileage[17]	16,303	16,516	17,111	17,225	12,994	12,994	12,992	13,093

[15]The statistics for the Canadian Pacific were taken from its annual reports. In the case of the Canadian National, figures for 1919 were from its annual report for 1921, p. 7; and for 1920, 1921, and 1922, from its annual report for 1922, p. 7. The amount of the increase in Passengers per Train Mile and Passenger Train Earnings per Passenger Train Mile on the Canadian National from 1920 to 1921 would seem to indicate that these figures were not on a comparable basis for the four years.

[16]Including mixed train mileage.

[17]Computed from freight and passenger density figures. The mileage figures in the annual reports referred to mileage operated at the end of each year, rather than to the average operated mileage.

However, the Canadian National made steady progress in its freight traffic operations. Allowing for the fact that 1920 was a year of peak traffic and 1921 was a poor traffic year, it will be seen that the Canadian National improved its position steadily. The ton mileage of revenue freight increased from 7,801,000,000 in 1919 to 10,091,000,000 in 1922; at the same time the average length of haul of revenue freight rose from 353 miles to 450 miles; revenue freight traffic density improved steadily so that it was 16.1 per cent greater in 1922 than in 1919. More advantageous train loading was accomplished, the number of tons of revenue freight per train mile increasing steadily from 359.3 to 482.4, which was largely responsible for the large rise in freight train earnings per freight train mile. Figures for freight train earnings per mile of operated road are not given in the preceding table, but they increased from $4,352 in 1919 to $5,263 in 1922.

In comparison with the Canadian Pacific, the Canadian National had a much lighter density of freight traffic. The average density on the Canadian Pacific for the four years was 925,638 ton miles of revenue freight per mile of line compared with 537,133 on the Canadian National. Nevertheless, the Canadian National more than held its own during the period in comparison with the Canadian Pacific with respect to all of the freight traffic indices, so that the position of the Canadian National was somewhat less unfavorable at the end of the period than it was at the beginning. This was so particularly with regard to the average haul of revenue freight, the average freight train load, and the freight train earnings per freight train mile. In 1919 the Canadian Pacific enjoyed earnings from freight and passenger traffic per mile of line which were 112.6 per cent. higher than those of the Canadian National, while in 1922 its advantage was 98.7 per cent over the Canadian National.

The principal reason for the large deficits on the Canadian National was the rapid rise in operating costs beginning about 1918 which was not adequately offset by higher rates or increased traffic. Moreover, the fact that the Canadian Northern and the Grand Trunk Pacific had been accumulating deferred

maintenance made a bad situation worse than it otherwise would have been. The Canadian Pacific was relatively better off because it had been in a prosperous condition for many years. It had enjoyed a very large increase in earnings in the years 1910 to 1914 and it took advantage of those years of plenty to put its property in first-class condition. Thus expenses for maintenance of way and structures which were less than $1,100 per mile of road annually for the years 1906-1910, increased on the average to $1,505 per mile of road for the next five years. Despite these large expenditures the Canadian Pacific had on the average an operating ratio of 65.8 per cent for the five years 1910 to 1914.[18] To be sure, the period of rising costs had its effect on the Canadian Pacific, as shown by the fact that its operating ratio increased to 84.7 per cent in 1920 despite the largest operating revenues in the history of the company up to that time. Nevertheless, the strength of its position enabled its management to control the rise in operating costs to a greater degree than was apparently possible in the case of the Canadian National.

In the following table the expenses for maintenance of way and structures for the years 1919 to 1922 are given for both systems, together with the comparative maintenance expenses per mile of equated track and per traffic unit.

Expenses for Maintenance of Way and Structures 1919-22[19]

	Total Expenses for Maintenance of W. and S.[19]		Expenses for M. of W. and S. per Mile of Equated Track[20]		Expenses for M. of W. and S. per Traffic Unit[21]	
Year	*Canadian National*	*Canadian Pacific*	*Canadian National*	*Canadian Pacific*	*Canadian National*	*Canadian Pacific*
1919	$33,533,549	$28,912,220	$1875	$1763	3.18 mills	1.79 mills
1920	42,907,218	32,573,927	2332	1982	3.65 mills	1.71 mills
1921	33,707,956	29,038,641	1808	1765	3.03 mills	1.97 mills
1922	31,276,388	27,405,339	1677	1654	2.57 mills	1.66 mills

[18]Figures computed from statistics given in the Canadian Pacific Railway Company, *Annual Reports*.

[19]Canadian National and Canadian Pacific Railways, *Annual Reports*. Figures for the Canadian National did not include the Grand Trunk Railway System which was not a part of the Canadian National Railways until the beginning of 1923.

[20]Mileage figures for both railways were taken from *Statistics of Steam Railways of Canada*, Dominion Bureau of Statistics, Ottawa. The method of equating was that of

Despite the far lighter density of traffic on the lines of the Canadian National, its expenses for maintenance of way and structures were on a more liberal basis per equated track mile than those of the Canadian Pacific. The real burden of the higher expenses of the Canadian National is shown by the relative maintenance costs per equated traffic unit. It will be noted that in 1920 expenses for maintenance of way and structures amounted to 1.71 mills per traffic unit on the Canadian Pacific, and 3.65 mills per traffic unit on the Canadian National. The disparity was reduced materially in 1922 as a result of improved traffic conditions on the Canadian National and the fact that "most of the deferred maintenance had been taken up in 1919 and 1920."[22]

The expenses for maintenance of equipment are shown in the following table:

EXPENSES FOR MAINTENANCE OF EQUIPMENT 1919-22[23]

	Total Expenses for Maintenance of Equipment		Expenses for Maintenance of Equipment per Train Mile	
Year	*Canadian National*	*Canadian Pacific*	*Canadian National*	*Canadian Pacific*
1919	$25,202,304	$33,897,728	74.9 cents	80.0 cents
1920	34,834,703	46,350,793	92.1 cents	99.2 cents
1921	31,649,007	36,746,816	91.3 cents	93.2 cents
1922	30,460,920	32,009,461	90.5 cents	74.9 cents

The average expenses for maintenance of equipment per train mile were approximately the same for the two systems except in 1922. Needless to say the maintenance expenses of the Canadian National were materially higher per dollar of revenue than those of the Canadian Pacific.

Finally, it is pertinent to consider the transportation category of costs for the two systems:

the Interstate Commerce Commission which assigns a weight of 100 to first main track, 80 to second track and 50 to yard tracks and sidings. On this basis the equated track mileage of the Canadian National Railways was as follows: 17,889; 18,396, 18,644; and 18,647 miles, respectively for the years 1919, 1920, 1921 and 1922. The equated track mileage of the Canadian Pacific was 16,402; 16,431; 16,449; and 16,567 miles, respectively for the years 1919, 1920, 1921 and 1922.

[21]The traffic unit used in this computation was a combination of ton miles and passenger miles, with a weight of one given to ton miles and three to passenger miles.

[22]Canadian National Railways, *Annual Report*, 1921, p. 10.

[23]From the Annual Reports of the Companies. The unit costs were computed from the reported statistics.

Transportation Expenses 1919-22[24]

	Total Transportation Expenses		Transportation Expenses per Train Mile	
Year	*Canadian National*	*Canadian Pacific*	*Canadian National*	*Canadian Pacific*
1919	$59,180,352	$68,054,175	$1.76	$1.61
1920	76,695,606	86,608,611	2.03	1.85
1921	71,601,189	73,557,749	2.07	1.87
1922	60,470,754	70,994,919	1.80	1.66

The transportation costs of the Canadian National per train mile were nearly ten per cent higher than those of the Canadian Pacific. A more significant comparison was the relative transportation ratios of the two systems, i.e., the ratio of transportation expenses to gross revenues.

The comparative transportation ratios of the two systems were as follows:

Ratio of Transportation Expenses to Gross Revenues 1919-22

	Canadian National	*Canadian Pacific*
1919	56.34%	38.46%
1920	61.04%	39.98%
1921	56.52%	38.11%
1922	50.34%	38.03%

The economic waste involved in providing a competitive transportation service on the Canadian National should have been clearly evident from its high transportation ratios. Largely as a result of the competitive factor, standards of service were provided which were thoroughly uneconomic on account of the low traffic density of the system.

In an earlier chapter it was pointed out that the collapse of the new railways was partly caused by the World War, because it brought a halt to the influx of immigrants, thus retarding the development of the territories through which the new railways passed, and because it was responsible for a rapid rise of construction costs and costs of railway operation. For the purposes of the Grand Trunk arbitration case, the Department of Railways and Canals of the Dominion Government made a

[24] *Ibid.*

study which was designed to show the nature and the extent of the increased cost of maintaining and operating Canadian railways for each year from 1910 to 1920. The average yearly prices of some 400 commodities used in railway operations were compiled and converted to index numbers, and a similar compilation of rates of pay for various classes of labor used by the railways was made. The index numbers of materials and of various classes of labor for each main category of expense, such as maintenance of way and structures, etc., were weighted in such proportions as to give each item as nearly as possible its proper weight in the total result. The resultant composite index numbers for each main category of expense were then weighted according to the ratio of each category to total operating expenses, to determine the annual weighted index number of operating costs. Although a great deal of weighting was done, it was discovered that a simple average of all the index numbers of materials and classes of labor, without regard to weight, produced a result nearly in accord with the weighted index number. Transportation costs, one of the main

INCREASED COST OF MAINTENANCE AND OPERATION, CANADIAN RAILWAYS, 1910-20[25]

(*Index Numbers,* 1910=100)

Year	*Maintenance of Way and Structures*	*Maintenance of Equipment*	*Transportation Expense (Weighted for increased train loading)*	*Traffic, General and Misc. Expense*	*Total Operating Expenses*
1910	100.00	100.00	100.00	100.00	100.00
1911	105.85	106.69	100.78	101.87	103.03
1912	106.40	111.89	104.51	108.15	106.85
1913	109.41	111.72	104.86	108.70	107.45
1914	109.68	112.29	106.15	109.73	108.41
1915	114.03	114.69	106.97	119.78	110.72
1916	116.81	148.09	108.05	147.89	121.84
1917	129.19	179.20	123.25	189.13	142.27
1918	168.26	225.39	160.93	222.83	182.02
1919	200.22	233.20	176.08	234.78	197.49
1920	236.30	266.74	190.18	268.70	220.80

[25]From the archives of the Canadian National Railways. This study was prepared by the Department of Railways and Canals in connection with the Grand Trunk Arbitration case.

divisions of expense, were weighted to give allowance for increased train loading. Allowing for the fact that the computed index numbers of operating costs do not take into consideration increased efficiency either in the use of labor or materials (except to a small degree in the case of transportation costs), there is some value in noting the results of this study, because of the disastrous effect of rising costs upon the Canadian Northern and the Grand Trunk Pacific-National Transcontinental Railways.

On the basis of the foregoing figures the costs of maintaining and operating Canadian railways more than doubled between 1910 and 1920, and, as will be seen presently, they were even higher in 1921 than in 1920. The transportation index was weighted for increased train loading, the unweighted transportation index number for 1920 being 210.81 which may be compared with the weighted figure, 190.18.

The rise in railway wage rates contributed materially to the increased costs of operation as shown by the following figures:

AVERAGE COMPENSATION OF CANADIAN RAILWAY EMPLOYEES IN CENTS PER HOUR[26]

Year Ending June 30			*Year Ending December* 31				
1917	1918	1919	1919	1920	1921	1922	Per Cent Increase 1921 over 1917
28.8	33.1	48.4	52.3	62.4	62.8	58.0	118.0

Another factor of importance was the great increase in the cost of fuel as shown in the accompanying table:

COST OF FUEL PER 100 LOCOMOTIVE MILES[27]

Class of Locomotives	1917	1918	1919	1920	1921	1922	Per cent Increase 1920 over 1917
Freight	$29.87	$47.30	$46.36	$55.84	$53.02	$52.80	86.9
Passenger	17.53	26.47	27.57	32.54	31.20	29.82	85.6

THE LEVEL OF RATES AND FARES

There were no general rate changes in Canada from 1914

[26]Dominion Bureau of Statistics, *Steam Railway Statistics of the Dominion of Canada.*
[27]*Ibid.*

to 1917 so that the rate structure for those years may be regarded substantially as at the pre-war level.[28] Taking this level of freight rates at 100 per cent, the following table shows the percentage changes in rates that were put into effect from 1918 to 1921:

CHANGES IN THE GENERAL LEVEL OF CANADIAN FREIGHT RATES 1917-21[29]

Effective Date of Rate Changes	*Index* 1914-1917=100%	Decision
1 Mar. 15, 1918	115.00	15% Case, 7 B.R.C. 411.
2 Aug. 12, 1918	129.96	25% Case designed to offset McAdoo Award 8 B.R.C. 277.
3 Sept. 13, 1920	174.01	Increase of 40% eastern Canada, 35% western Canada with exceptions. 10 B.R.C. 283
4 Jan. 1, 1921	168.28	Reducing increases of Sept. 13, 1920 to 35% east and 30% west. 10 B.R.C. 283.
5 Dec. 1, 1921	156.08	Reducing increases of Sept. 13, 1920 to 25% east and 20% west. 11 B.R.C. 255.

Passenger fares were not advanced as much as freight rates as shown in the following table.

CHANGES IN CANADIAN PASSENGER RATES[30]

Effective Date of Rate Changes	*Index* 1914-1917=100%	*Decision*
1 Mar. 15, 1918	115	Increase 15%.
2 Sept. 13, 1920	133.4	Increase 20% with 4 cent maximum.
3 Jan. 1, 1921	126.5	One-half of 20% increase of September 13, 1920 removed.
4 July 1, 1921	115.0	Balance of increase of September 13, 1920 removed.

The greatest increase in the general level of freight rates was 74 per cent above the pre-war level, and passenger fares rose only 33.4 per cent. The actual effect of these rate changes on the earnings per ton mile and per passenger mile varied somewhat from the foregoing percentages. In the case of

[28]Jackman, *op. cit., pp.* 227-58.
[29]Department of Railways and Canals, *Annual Report,* March 31, 1922, p. 27 and Jackman, *loc. cit.*
[30]Department of Railways and Canals, *Annual Reports, loc. cit.*

the Canadian Pacific the average rate per ton mile in 1920 was 47.65 per cent higher than the average for the period 1914 to 1917 and in 1921 it reached the high point of 70.12 per cent above the base average. The amount received per passenger mile also reached a high point in 1921 when it was 44.1 per cent above the average for the years 1914 to 1917. These figures are presented in order to show the great disparity between the rates for freight and passenger service and the operating costs with which the railways had to contend.

On the basis of the foregoing discussion of cost and rate trends, it is instructive to note the comparative trend of earnings and expenses per train mile on the Canadian Pacific and the Canadian Northern, as shown in the following table. Needless to say, it should be borne in mind that the figures of expense per train mile reflected not only the course of prices of materials and wages but also heavier train loading, the changing technique and efficiency of operations, and the effect of

TOTAL OPERATING REVENUES AND EXPENSES PER REVENUE TRAIN MILE, CANADIAN RAILWAYS, 1910-22[31]

	Total Operating Revenues per Train Mile			Total Operating Expenses per Train Mile		
Year[32]	*All Canadian Railways*	*Canadian Pacific*	*Canadian Northern*[33]	*All Canadian Railways*	*Canadian Pacific*	*Canadian Northern*[33]
1910	$2.04	$2.30	$2.38	$1.41	$1.50	$1.58
1911	2.10	2.39	2.41	1.46	1.56	1.63
1912	2.17	2.47	2.26	1.49	1.60	1.56
1913	2.26	2.52	2.64	1.60	1.69	1.86
1914	2.25	2.51	2.67	1.66	1.71	1.83
1915	2.14	2.47	2.07	1.59	1.63	1.50
1916	2.36	2.73	2.17	1.62	1.71	1.54
1917	2.68	3.14	2.32	1.93	2.07	1.66
1918	3.01	3.46	2.46	2.49	2.57	2.15
1919	3.82	4.19	2.98	3.52	3.43	3.36
1920	4.19	4.65	3.18	4.07	3.90	3.99
1921	4.38	4.90	3.65	4.04	3.95	4.01
1922	4.10	4.33	3.37	3.66	3.45	3.71

[31]Dominion Bureau of Statistics, *Steam Railway Statistics of the Dominion of Canada.*

[32]1910 to 1918 inclusive, year ending June 30th; 1919 to 1922, calendar year. Figures for the half-year, June 30, 1918 to December 31, 1918 have been omitted.

[33]The figures for the Canadian Northern from 1910 to 1914 inclusive do not include lines of the system east of Port Arthur; these were not included in the system until 1915. For the year 1922 the Canadian Northern system includes the Grand Trunk Pacific.

increasing density of traffic. Similarly, revenues per train mile were the resultant not only of the rising trend of freight and passenger rates, but also of the average number of tons of freight per train mile and the average number of passengers per passenger train mile. While the average number of passengers per passenger train mile varied little from 1910 to 1920, the average number of tons of freight per freight train mile increased on Canadian railways from 314 tons in 1910 to 457 tons in 1920. Consequently the expense per train mile in the later years represented the cost of performing relatively more work, and the revenues per train mile were the returns from more tons of freight per train mile. For purposes of comparison the Table includes the figures for all Canadian railways in addition to those for the Canadian Pacific and the Canadian Northern.

In so far as Canadian railways as a whole were concerned, the steady increase in operating expenses per train mile up to 1920 was not proportionately offset by increased revenues per train mile, so that the net operating revenue per train mile fell from 63 cents in 1910 to 12 cents in 1920. The figures for the Canadian Pacific show the effects of increased density of traffic during the war years which more than offset the influence of higher material and labor prices with the result that net revenues per train mile increased from 80 cents in 1910 to $1.07 in 1917. In the three succeeding years, however, 1918 to 1920, net operating revenues per train mile declined, reaching the low point of 75 cents in 1920, showing that higher rates for freight and passenger traffic and more economical operations due to increased density could not entirely overcome the effects of rapidly increasing prices for labor and materials. The vanishing prosperity of the Canadian Northern is clearly indicated by the trend of its revenues and expenses per train mile. The figures for the years 1910 to 1914 inclusive were for the prairie lines of the company unburdened by the light traffic lines of its subsidiaries in eastern Canada. During these years the company had profitable net railway operating revenues per train mile. The lines of the various subsidiary companies were taken into the system accounts in 1915 and from that time

the Canadian Northern was a transcontinental system. This had the effect of decreasing net railway operating revenues from 84 cents in 1914 to 57 cents in 1915. In 1917, the last year that the Canadian Northern was operated as a private company, its net operating revenue per train mile was 66 cents, compared with $1.07 for the Canadian Pacific. From 1917 to 1920 operating expenses per train mile on the Canadian Northern rose from $1.66 to $3.99 while its operating revenues per train mile advanced from $2.32 to $3.18. In other words, on a train mile basis its expenses increased 140.3 per cent although its gross revenues rose only 37 per cent. In contrast, expenses of the Canadian Pacific increased 88.4 per cent and revenues 48 per cent.

SUMMARY

During the period 1919 to 1922 the operations of the Canadian National were adversely affected by many factors. Three separate groups of railways had to be co-ordinated into a single operating system, maintenance expenditures deferred from previous years had to be made up despite the abnormal prices which prevailed and large sums had to be expended for betterments and improvements. Moreover, the system was in active competition with the Canadian Pacific Railway and, as pointed out, the management of the Canadian National adopted the policy of building up the lines and services of the system "with a view to securing a greater participation in the movement of competitive traffic." Unfortunately there was not enough traffic on Canadian lines to warrant the policy of developing the Canadian National up to the standards of the Canadian Pacific. The Canadian Pacific had developed its transportation plant gradually as the country grew and as the traffic permitted. It was in a prosperous condition and was fully capable of keeping one step ahead of its publicly-owned competitor. For these reasons the Government and the Canadian National should have realized that the existing state of settlement and development of the country did not warrant another transcontinental system offering a service equal to that of the Canadian Pacific. Yet after consolidation with the Grand Trunk

system in the fall of 1922, as will be seen shortly, the Canadian National continued its unfettered aspirations, aided by easy access to the government purse. The result was a period of acute and costly competition which greatly increased the railway burden of the Government, and weakened the financial position of the Canadian Pacific.

CHAPTER VII

THE ACQUISITION OF THE GRAND TRUNK SYSTEM

THE Grand Trunk Railway system belongs to the first period of railway development in Canada.[1] Its history extends back to 1852, when it was organized for the purpose of providing a line of railway from Portland, Maine, through Montreal, Toronto and Sarnia to Detroit, with the intention of eventually reaching Chicago.[2] When it was acquired by the Dominion Government in 1920, the system was composed of the Canadian lines of the company, 3,612 miles, the Atlantic and St. Lawrence, extending from the Quebec-Vermont border to Portland, Maine, 172 miles, and the lines west of the Detroit and St. Claire rivers, 992 miles, a total of 4,776 miles. In addition the company controlled the Central Vermont and Grand Trunk Pacific railways by stock ownership. Its main line was double-tracked from Montreal through Toronto and Hamilton to Sarnia on the Saint Clair, through a tunnel under that river to Port Huron, and then to Chicago, via Pontiac, Lansing, Battle Creek and South Bend. There was also an important double-track connection from Hamilton to Niagara and Buffalo where traffic was exchanged with the Lehigh Valley. It owned a line from Windsor, opposite Detroit, to Buffalo, and from Montreal to Quebec city. From Quebec and Montreal it had a line to Portland, Maine, its winter port. From Montreal south by some of its subsidiaries, including the Central Vermont, it reached White River Junction, whence, through a connection with the Boston and Maine,

[1]It comprises in its mileage several lines which were built from 1836 to 1852, including Canada's pioneer railway, the Champlain and St. Lawrence.

[2]For a brief history of the Grand Trunk Railway System see *Correspondence Regarding Grand Trunk Railway Acquisition.* Sessional Paper No. 90, 1919, pp. 26-31. Also Department of Railways and Canals, *Annual Report,* March 31, 1921, pp. 180 ff. Pages 128-204 give a history of the Grand Trunk Acquisition together with the Award and Reasons for the Award of the Grand Trunk Arbitration Board.

it had access to Boston. By the Central Vermont it also reached New London, Connecticut, from which a boat line carried its freight to New York.

The Grand Trunk, therefore, was an important trunk line system, with its main line extending from Chicago, through Michigan and Canada to the sea at Montreal, at Quebec, at Portland, and by means of connections, at Boston and New York. By means of its branch lines through the highly industrialized sections of Ontario, and in Michigan, the Grand Trunk connected its main lines with the Great Lakes at many points. It operated boats and car ferries between various points on the Great Lakes. It had complete or partial ownership of steamship lines, elevator companies, electric lines, bridge companies, terminal companies and hotel companies used in connection with the railway system. Finally, through its subsidiary, the Grand Trunk Pacific, it had nearly 3,000 miles of line in the West, extending from Winnipeg to Prince Rupert.

The Grand Trunk was financed wholly by British capital, and from its inception was managed by a board of directors, resident in England.[3] The company had "varying financial success" until the late nineties, when Mr. Charles M. Hays was secured as general manager.[4] Under his direction, due to the expenditure of large amounts to rehabilitate the property, the prospects of the Grand Trunk Railway became considerably brighter, and for the first ten or twelve years of the twentieth century, the company enjoyed the greatest prosperity of its history.

In 1902 the management of the Grand Trunk decided that it was vital to the future prospects of the company to extend its lines to the Canadian Northwest. The Grand Trunk would thereby share in the prospective development of the West and secure for its lines a share in the transcontinental traffic. Otherwise it would be compelled to continue the delivery of traffic for western Canada to the Canadian Pacific at North Bay, without any exchange in the way of eastbound traffic. As

[3]This element of remote control was strongly criticized in the Drayton-Acworth report.

[4]From a *Brief History of the Canadian National Railways* prepared by the Company for the Royal Commission on Railways, 1931-1932.

already stated, the original intention of the Grand Trunk was to build a separately incorporated railway from its northern terminus at North Bay, Ontario, to the Pacific coast via Winnipeg, and to request aid from the Government for the project.[5] The Government took the position that the country needed a second transcontinental line but that to receive aid the proposed line must be an all-Canadian transcontinental with its eastern terminus in the maritime provinces. Consequently, the counter proposal of the Government, which has already been discussed in an earlier chapter, was laid before the officials of the Grand Trunk, and received their acceptance. The new line was projected to run from Moncton, New Brunswick, to Quebec and thence to Winnipeg and to be constructed at government expense. The western extension from Winnipeg to Prince Rupert was to be built by the Grand Trunk Pacific, which would be a subsidiary of the Grand Trunk. Liberal aid was promised for this extension, and it was provided that the Grand Trunk Pacific would lease the eastern division from the Government. Connection with the Grand Trunk was to be obtained at North Bay by trackage rights over the Temiskaming and Northern Ontario.

Undoubtedly the revised project was far less advantageous to the Grand Trunk than the original scheme. For, since the principal reason for the proposed expansion was to enhance the business of the Grand Trunk, it was obvious that this could only be done if eastbound transcontinental traffic could be routed over Grand Trunk lines. But this was specifically prevented by the requirement that export traffic be routed over the Transcontinental to maritime ports. To be sure, the Grand Trunk realized some benefits from the Grand Trunk Pacific, but these proved to be quite incommensurate with the tremendous obligations which the parent company incurred on behalf of its new subsidiary. The cost of construction of the new line greatly exceeded the original estimates, with the result that both the Government and the Grand Trunk were required to obligate themselves with respect to the new transcontinental

[5]From a copy of the "Memorial of the Grand Trunk to the Dominion Government" see Railway Inquiry Commission, *Report*, 1917, p. xxvii.

to a much greater extent than had been anticipated. Thus when the Grand Trunk Pacific was completed, the Grand Trunk had placed its guarantee upon bonds of the Grand Trunk Pacific to the amount of $97,301,000. With respect to these securities the Grand Trunk guaranteed absolutely the payment of annual interest amounting to $2,292,760 and conditionally annual interest amounting to $1,395,170.[6]

In addition, the Grand Trunk had advanced over $22,000,-000 to the Grand Trunk Pacific and its subsidiaries—all this in the prospect of profitable results.[7] But it was already known in 1915, when the Grand Trunk Pacific project approached completion, that it was doomed to failure. Coming at a time when the Grand Trunk itself was experiencing financial difficulties, the prospect of losing $22,000,000 was a severe blow, although it was not so serious in the instant as was the obligation to pay interest on Grand Trunk Pacific securities. Without financial aid from the Government or relief from its guarantees, the Grand Trunk faced bankruptcy and receivership.

In December 1915, the Chairman of the Board of Directors of the Grand Trunk proposed to the Canadian Premier, Sir Robert Borden, that the Government take over the Grand Trunk Pacific and its subsidiaries as from January 1st, 1916, repay to the Grand Trunk any money advanced to the Grand Trunk Pacific and its subsidiaries, relieve the Grand Trunk of its liability for interest on securities of the Grand Trunk Pacific and in return the Grand Trunk would surrender to the Government the whole of the common stock of the Grand Trunk Pacific.[8] Considering the fact that it was certain even at that time that the Grand Trunk Pacific enterprise would not for years be on a paying basis and that the Grand Trunk had

[6]Department of Railways and Canals, *Annual Report,* March 31, 1921, pp. 174 and 185. The full amount of interest guaranteed absolutely was $2,594,080, but this was reduced by $301,320, which was the interest on bonds of the Lake Superior line. This line was leased to the Government in 1915 at a rental of $600,000, and the rental carried provision for the guaranteed interest. The conditional guarantee meant that the Grand Trunk was liable if it had any net earnings remaining after the payment of its own operating expenses and fixed charges.

[7]*Ibid.,* p. 185.

[8]Railway Inquiry Commission, *Report,* 1917, p. xxvi.

paid nothing for the common stock, the Chairman's proposal was naturally unacceptable to the Government.

In his letter to the Premier, the Chairman pointed out that the Grand Trunk Pacific would no longer be operating on construction account after January 1st, 1916, and that any deficiency of revenues would then have to be met by the Government and the Grand Trunk Railway Company. Continuing, he wrote that "it is quite impossible for the Grand Trunk Railwas Company to meet the extra liabilities arising from the Grand Trunk Pacific Railway Company . . . We are now at the end of our tether with respect to Grand Trunk Pacific financing."[9] The Railway Inquiry Commission, appointed in 1916 to report on the railway situation, commented as follows with respect to the Grand Trunk proposal:[10] "We cannot think that this is a reasonable proposition, or one that we can advise the government to accept. What would be thought if one partner in a business were to say to the other: 'We entered jointly on an enterprise which we thought would be profitable. It has turned out the reverse. I propose that you settle with the creditors, pay out to me the whole of the capital I put in, and let me retire. Provided I go free, I am content that you make what you can [out] of the business.' " The majority commissioners, Drayton and Acworth, after a thorough study of the history of the Grand Trunk Pacific, were convinced that the promoters of that enterprise had neither legally nor morally the basis for a claim that the country should make good the Grand Trunk's mistaken investment in the Grand Trunk Pacific. The final conclusion of these two commissioners was that the Government should acquire control of the entire Grand Trunk system, take over its assets and liabilities and pay to the shareholders of the Grand Trunk Company an annuity which would be increased by forty or fifty per cent at the end of seven years.[11] They suggested that the annuity for the first seven years should be a "moderate, but substantial" percentage of $3,600,000, which was the average dividend payment to

[9] *Idem.*
[10] *Idem.*
[11] *Ibid.*, p. lxv.

shareholders in the previous ten years. The appropriate method of dividing this annuity was to be left to the various classes of shareholders and the board of directors of the company.

During the course of the proceedings of the Grand Trunk Arbitration, representatives of the Grand Trunk contended that their company had serious cause for complaint against the Dominion Government in regard to the Grand Trunk Pacific undertaking.[12] Particularly it was urged that the Grand Trunk in 1903 desired to build its western system from North Bay and that this original intention was not carried out because the Government aid that was essential to the construction of the Grand Trunk Pacific could only be secured upon the terms stipulated by the Government. The result was that the new system was not a natural adjunct of the Grand Trunk Railway. Undoubtedly both the Government and the Grand Trunk were gravely mistaken in 1903 as to the cost and future possibilities of the Grand Trunk Pacific enterprise. But the fact remains that the Grand Trunk was under no compulsion to proceed with the revised project and any profits from the new system would have gone to the Grand Trunk Railway. Moreover, the Government not only carried out its financial part of the bargain but, as explained in an earlier chapter, went far beyond the strict letter of its agreement to aid the Grand Trunk Pacific. It was also complained that after the inception of the Grand Trunk Pacific undertaking the Government permitted the Canadian Pacific to extend into the new territory that the Grand Trunk was designed to serve, and that the Canadian Northern was not only allowed but actually subsidized year after year to build lines competing with and paralleling the Grand Trunk Pacific for hundreds of miles. As a matter of fact, the Canadian Pacific was the first railway to develop the prairie provinces, and it was well known that it enjoyed charter rights to build branch lines throughout the West. Similarly, the Canadian Northern was expanding rapidly and had reached Edmonton before the Grand Trunk Pacific broke ground on

[12]Department of Railways and Canals, *Annual Report,* March 31, 1921, p. 177.

the prairie. Moreover, before the Grand Trunk Pacific enterprise was started, "express notice in writing had been given to the Grand Trunk, by the Canadian Northern Railway Company, that it possessed the necessary charter powers and intended to extend its system easterly through Ontario and Quebec and westerly to the Pacific Ocean."[13] Yet with full knowledge of these facts, the Grand Trunk failed to demand an agreement from the Government to protect its transcontinental project from undue competition. These facts are not to be considered a justification but rather an explanation of what took place. It is now clear that the railway regulatory body should have had the power to sanction or prevent the construction of new mileage. The determination of the proper bounds of railway expansion should never have been left to the sway of political forces or to the rivalry of ambitious men and powerful corporations.

During 1916, 1917 and 1918 the Dominion Government loaned funds to the Grand Trunk Pacific to enable it to meet operating deficits and fixed charges, and as a result the Grand Trunk was not called upon to "make good" its guarantees. Early in 1918 negotiations for the acquisition of the Grand Trunk system were definitely initiated by the Canadian Prime Minister, in accordance with the majority recommendation of the Royal Commission.[14] The Grand Trunk was requested to state the terms for which the Grand Trunk and Grand Trunk Pacific might be acquired by the Government. In its reply, the board of directors of the Grand Trunk made the mistake of being entirely too grasping. Its proposal was that the Government assume all the liabilities of the Grand Trunk and pay annually $5,287,000 (£1,084,200) from January 1st, 1917, which would pay the dividends on the guaranteed and preference stocks. In addition the Government was asked to pay on the common stock (that had never received a dividend) one per cent from January 1, 1920, two per cent from January 1, 1925, and two and a half per cent from January 1, 1930. Ob-

[13] *Idem.*

[14] *Correspondence Regarding Grand Trunk Railway Company Acquisition and Memoranda Respecting the same,* Sessional Paper No. 90, 1919.

viously this offer was unacceptable and on March 5, 1918, the Government sent a counter proposal, offering in accordance with the Drayton-Acworth report to take over the assets and obligations of the Grand Trunk and to pay annually to the shareholders (over and above the fixed charges) $2,500,000 for the first three years, $3,000,000 for the next five years, and $3,600,000 annually thereafter.[15] In lieu of these amounts the Government offered to leave the terms to arbitration.

Negotiations continued throughout the year, but without success. On February 18, 1919, the company proposed that the Government take over the Grand Trunk Pacific system, repaying the Grand Trunk all indebtedness, and that the Grand Trunk should enter into a traffic agreement with the government by which the Grand Trunk would become the eastern connection of the Canadian Government lines and the Government lines the western connection of the Grand Trunk, interchanging at North Bay. The arrangement would have involved the operation by the Grand Trunk of the eastern lines of the Canadian Northern. This was substantially the solution proposed by Mr. A. H. Smith in his minority report in 1917. But the Government was determined to follow the majority report and refused to consider it.

The affairs of the Grand Trunk Pacific, as well as those of the Grand Trunk, were becoming increasingly embarrassing. The climax came on February 28, 1919, when the Government announced its intention of making no further advances to the Grand Trunk Pacific while its negotiations with the Grand Trunk Railway Company remained so unsatisfactory. As a result the Grand Trunk Pacific unwisely forced the situation by suddenly notifying the Government that it would be unable to continue operations after March 10. Accordingly the Minister of Railways and Canals was appointed receiver, and took charge on that date. It will be remembered that previous to this date the Canadian Government Railways had been transferred from the supervision of the Minister of Rail-

[15]See page 102 for the book values of the share capital of the Grand Trunk Railway Company.

ways and Canals to the new board of directors of the Canadian Northern for operating purposes. It was not until September 1, 1920, that the management of the Grand Trunk Pacific was entrusted to the Canadian National board.[16]

Negotiations between the Grand Trunk and the Government were not resumed until August, 1919. Finally an agreement was consummated in October and formed the basis of an "Act respecting the acquisition by His Majesty of the Grand Trunk Railway System" which became law on November 10, 1919.[17] This was slightly modified by an Act of May 11, 1920, which contained the agreement between the Government and the Grand Trunk that had been signed on March 8, 1920.[18] An understanding of the terms of the agreement requires brief reference to the balance sheet of the Grand Trunk.

On December 31, 1920, the year in which the Grand Trunk Railway Company of Canada was acquired, its assets and liabilities were as follows:

Balance Sheet of the Grand Trunk Railway Company of Canada, December 31, 1920.[19]

Assets		*Liabilities*	
Capital expenditure and investments in affiliated companies	$484,647,864	Capital stock (Preference and common)	$241,237,589
Current assets	47,804,863	Funded debt (perpetual debentures)	155,373,808
Deferred Assets	12,493,291	Other funded debt	66,429,952
Unadjusted debits	11,179,054	Dominion Government advances	21,340,809
		Miscellaneous other debts	1,758,059
		Government grants in aid of construction	15,142,633
		Current liabilities	44,495,529
		Deferred liabilities and unadjusted credits	14,629,533
		Corporate deficit	*4,282,840*
	$556,125,072		$556,125,072

16 Department of Railways and Canals, *Annual Report,* March 31, 1921, p. 20.

17 Statutes of Canada, 10 George V, c. 17.

18 Statutes of Canada, 10-11 George V, c. 13, which contains the entire agreement. Also printed in Sessional Paper No. 20, 1922, pp. 135 ff.

19 Grand Trunk Railway Company of Canada, *Annual Report,* December 31, 1920.

The capital stock of the company was divided into the following five different groups of securities:

4% guaranteed stock	$ 60,833,333
First preference stock (5%)	16,644,000
Second preference stock (5%)	12,312,667
Third preference stock (4%)	34,884,535
Common stock	116,563,053
	$241,237,588

The perpetual debentures and the interest requirements thereon were as follows:

		Annual Interest
Grand Trunk 5% debenture stock (Secured by First Mortgage)	$ 20,782,492	$ 1,039,125
Great Western 5% debenture stock (Secured by First Mortgage)	13,252,323	662,616
Grand Trunk 4% consolidated perpetual debenture stock	119,839,014	4,793,560
Northern Railway 4% debenture stock	1,499,979	59,999
	$155,373,808	$6,555,300

The total fixed charges of the company (exclusive of interest on the $60,833,333 issue of 4 per cent guaranteed stock) amounted to $9,468,454 in 1919, $10,054,583 in 1920 and $14,059,281 in 1921. In addition there should be added the income deficits of the Grand Trunk lines in the United States which amounted to $1,345,448 in 1919 and $2,926,025 in 1920. For the eight-year period 1910 to 1917 the income deficits of the lines in the United States averaged $469,000 annually.[20] Further information about the earnings of the Grand Trunk system is given on page 108.

The agreement provided for the acquisition by the Government of the "entire capital stock of the Grand Trunk, except the four per cent guaranteed stock" amounting to $60,833,333. In consideration for obtaining control of the Grand Trunk and all of its subsidiaries, the Government agreed to guarantee the payment of interest on the $155,374,000 of debenture stocks. In addition the Government agreed to guarantee the payment of dividends on the $60,833,000 issue of four per cent guaranteed stock. The voting powers possessed by the debenture and guaranteed stocks were to cease, and all

[20]Grand Trunk Railway Company of Canada, *Annual Reports*.

voting powers were to vest in the preference and common stocks.[21]

The capital stock which was to be acquired by the Government consisted of the first, second and third preference stocks and the ordinary stock. The value, if any, of these stocks was to be determined by a board of three arbitrators, although the agreement placed a limit of $64,000,000 on the value that might be determined. Payment was to be made by the issuance of a security identical in nature to the four per cent guaranteed stock, without voting power. Pending arbitration a management committee of five members, representatives of the shareholders and the Government, was appointed on May 21, 1920, "to insure the operation of the Grand Trunk system in harmony with the Canadian National Railways, the two systems being treated, in the public interest, as nearly as possible as one system."[22]

The arbitration board, appointed on July 9, 1920, consisting of Sir Walter Cassels of the Exchequer Court, Chairman, Sir Thomas White for the Government and Honorable William Howard Taft for the company, was unable to commence proceedings until February 1, 1921, largely due to the unpreparedness of the counsel for the Grand Trunk.[23] The agreement limited the time for the completion of the arbitration proceedings to nine months from the date of the appointment of the arbitrators. By the terms of the agreement there was no obligation on the part of the Government to finance the Grand Trunk operations, and yet the Government had been called upon to assist the company financially to a large extent to enable it to remain solvent. In the face of this aid, the Government considered that the Grand Trunk was guilty of "dilatory and obstructory tactics" in the conduct of the arbitration.[24] When these proceedings were uncompleted on April 9, 1921, a new agreement was required. The system of joint management (by the English directorate and the committee

[21]See Statutes of Canada, 10-11 George V, c. 13.
[22]*Ibid.*, Sec. 4 of the Agreement.
[23]Department of Railways and Canals, *Annual Report*, March 31, 1921, p. 141.
[24]House of Commons Debates, Canada, April 19, 1921, p. 2331.

of management) had been found to be "embarrassing, inconvenient and expensive."[25] Consequently by Government demand the new agreement provided for the resignation of the Grand Trunk directorate, the substitution of a Canadian board (appointed by the Government) and the establishment of the head office in Canada. Arbitration was revived on June 1, was concluded on July 8, and the arbitrators made their award at Ottawa on September 7, 1921. The Chairman of the board and the Government representative on the board agreed in the award that the preference and common stocks had no value. On the other hand, the company's representative, the Honorable William Howard Taft, dissenting from the majority award, found a value of not less than $48,000,000.[26]

A very important phase of the "hearings" was the controversy over the meaning of the term "value." Counsel for both the Government and the Grand Trunk were in accord that the purpose of the proceedings was to determine the value of the preference and common stocks as of May 21, 1920, which was the date of the appointment of the committee of management. However, exception was taken by counsel for the Government regarding the admissibility of evidence as to the reproduction or replacement cost of the Grand Trunk properties and their physical value (cost of production).[27] Accordingly, judgment on the points in issue was given by the board. The Chairman and Sir Thomas White held that "for the purpose of this inquiry evidence as to the reproduction or replacement cost, or so-called physical value, is valueless for ascertaining the value of the preference and common stocks of the Grand Trunk and therefore inadmissible."[28] It was the opinion of the majority that no connection could be established between a physical valuation of the railway property of the Grand Trunk system and traffic rates likely to be established in Canada or the United States. By the same judgment it was declared that the essential fact to be ascertained was the

[25]Department of Railways and Canals, *Annual Report,* March 31, 1921, p. 141.

[26]Grand Trunk Arbitration, "The Award and Reasons for Award," reprinted in Department of Railways and Canals, *Annual Report,* March 31, 1921, pp. 147-204.

[27]*Ibid.,* p. 167.

[28]*Ibid.,* p. 168.

earning power, actual or potential, of the system and that all evidence bearing on this was relevant and useful.

The Honorable Mr. Taft, however, considered it perfectly relevant, to the problem in hand, to receive evidence both as to the reproduction value of the railway system, and as "to the physical value of the property as distinguished from the reproduction value. This would not be for the purpose of compelling the Government to pay the reproduction or actual value of the physical property, but only to enable us to use the value as a circumstance in judging its future and potential net earning capacity. Such evidence is held in the United States to be competent and relevant in adjudging what a railway company should earn and therefore to fix its rates. With conditions so much the same in both countries and in respect to a railway like the Grand Trunk, seventy per cent of whose rate receipts are directly affected by rates in the United States, it would seem proper to adopt the same rule of evidence."[29]

Likewise he pointed out that in the arbitration of the value of the Canadian Northern stock, in a similar proceeding in 1917, presided over by the Chief Justice of Ontario, evidence was received as to the reproduction value and acted upon. "Evidence of this kind . . . might have materially affected the opinion which the board would form of the earning capacity of the road and its future possibilities, especially in view of the fact that the tendency of railway legislation in the United States . . . is toward making the reproduction value of railroad property, used economically for transportation, a proper basis for fixing rates."[30]

In view of the majority ruling of the board, the principle of valuation, which was utilized, was that of earning power. Sir Thomas White stated the methods pursued in the following: "In seeking to ascertain the earning capacity of the Grand Trunk we should, I think, consider all evidence relating to the earnings of the company as of the period of the acquisition of the shares, as well as the earnings since that date and down to the present time. So far as possible, endeavour should be

[29] *Ibid.*, p. 187.
[30] *Idem.*

made to estimate probable future earnings, and for this purpose the earnings of the Grand Trunk System in the past, and especially before the abnormal period of the War, may be specially considered. All evidence as to the physical condition of the system and its proper maintenance, the advantages and disadvantages of the location of its lines, volume of business, traffic rates, operating costs, and fixed charges must be given its due weight in its bearing upon the question of earning capacity, and there must also be taken into account the contingent annual liability upon guarantees of the Grand Trunk in respect of securities of other companies."[31]

In connection with the past earnings of the company, it developed that the reports of earnings shown in the annual statements to the shareholders and to the Railway Department at Ottawa for many years were inaccurate and misleading, due to manipulation at the instigation of the chairman of the directorate in London.[32] From 1912 to 1920 the London management had "exercised a discretion" in understating or overstating gross revenues and operating expenses with a view to making the published statements of the earnings and expenses of the railway different from what a true transcript of the books would have disclosed. In doing this they made use of an audit office account which they charged or credited with various amounts to accomplish their purpose. For example, in 1913, the operating revenues were improperly increased in the published accounts, "apparently to justify the declaration of a dividend on the three series of preferred stocks." Later, during the years 1915, 1916 and 1917, when the London management was anxious to induce the Canadian Government to take over the burden of the Grand Trunk Pacific, they understated operating revenues to the extent of nearly eight million dollars. Then in 1919 and 1920, when the sale of the road to the Government was being considered, the accounts were manipulated to show larger earnings than were actually made.[33]

[31] *Ibid.*, p. 171.
[32] In this connection, there is an interesting series of cables printed on pp.148-54, *ibid.*
[33] *Ibid.*, pp. 171 and 200.

Discovery of these manipulations necessitated a careful audit of the accounts in order to show the actual results during these years. The accounts as restated showed the following annual results after payment of all operating expenses and fixed charges (figures are for the Grand Trunk System but do not include the Grand Trunk Pacific or the Central Vermont):

GRAND TRUNK RAILWAY SYSTEM

EARNINGS AVAILABLE FOR PREFERENCE AND COMMON STOCK[34]

Year	*Net Revenue after Fixed Charges*	*4% Guaranteed Stock Dividends*	*Surplus Available for Preference and Common Stocks*
1910	$3,701,238	$1,960,171	$1,741,067
1911	4,456,650	2,080,161	2,376,489
1912	4,731,644	2,351,148	2,380,496
1913	3,359,240	2,417,871	941,369
1914	2,085,308	2,417,871	*332,563* Def.
1915	6,001,654	2,433,333	3,568,321
1916	11,872,176	2,433,333	9,438,843
1917	3,673,080	2,433,333	1,239,747
1918 Def.	*3,379,756*		*3,379,756*Def.*
1919 Def..	*6,321,986*		*6,321,986*Def.*
1920 Def.	*6,719,362*		*6,719,362*Def.*

*Dividend 4 per cent. guaranteed stock not added, since it was non-cumulative.

From the foregoing it appears that down to December 31, 1917, there were varying amounts available for dividend distribution on the preference and common stocks. The simple arithmetic average was $2,669,221 a year for the eight-year period, after which deficits were incurred.[35]

Before estimating probable future earnings in view of this past showing the abitrators had to consider the question of the contingent liability of the Grand Trunk with respect to its guarantees of Grand Trunk Pacific securities. The statements presented to the Board showed clearly the grave financial position of the latter company. It was hopelessly bankrupt, "with

[34]Grand Trunk Arbitration, Exhibits 456 and 470. Through the courtesy of Mr. J. B. McLaren, Comptroller, Canadian National Railways.

[35]This figure refers to the earnings available for distribution to the preferred and common shares after allowing for fixed charges and for the dividend on the 4 per cent guaranteed shares. The average net earnings of the Grand Trunk system as estimated in the Drayton-Acworth report, namely, $3,600,000, which formed the basis of one of the offers made by the Government to the Grand Trunk, represented the average of the dividends paid from 1906 to 1915 on the guaranteed and preference stocks of the company.

no prospect for years to come of earning even its operating expenses, much less its fixed charges."[36] The Grand Trunk's liability upon its guarantees with respect to Grand Trunk Pacific securities was stated in two amounts. One was an absolute guarantee of interest amounting to $2,292,760, and the other a conditional guarantee of $1,395,170. For example, if in any year after payment of operating expenses and fixed charges any net earnings remained, the liability of the Grand Trunk Railway with respect to the conditional guarantee had to be met before it could pay dividends on its own guaranteed, preference or common stocks. The absolute guarantee was a cumulative liability against the Grand Trunk but the conditional guarantee was non-cumulative. It was clear that so far as the three preference stocks and the common stocks of the Grand Trunk were concerned these guarantees would be in the nature of fixed charges to be deducted for years to come.

A question that was much in controversy during the hearings was whether the Grand Trunk management had made, from year to year, proper provision for maintenance of way, structures, and equipment.[37] This was a very important question, for if adequate maintenance expenditures (or on the other hand charges to current profit and loss for deferred maintenance) had not been made, earnings had been overstated. Counsel for the Grand Trunk contended that the system had been maintained to the extent necessary for maximum operating efficiency. Against this view, counsel for the Government claimed that for a long period of years, the system had been steadily deteriorating by reason of failure to provide out of annual earnings for adequate maintenance and depreciation of equipment and other property. In support of the company's contention evidence was presented to prove that the railway did not show deferred maintenance but on the whole was in excellent condition. The difference in the opinion of the majority, on the one hand, and that of the Honorable Mr. Taft, on the other, was in no small part due to the fact that Mr. Taft

[36]Department of Railways and Canals, *Annual Report*, March 31, 1921, p. 175.
[37]*Ibid.*, pp. 154-61, 171-6, 187-93.

was inclined to agree with the evidence of the engineer who testified on behalf of the company.

The Chairman, Sir Walter Cassels, and Sir Thomas White laid great stress on the fact that the company had not created depreciation reserves on the Canadian lines of the system. They also attached great weight to the argument of the Government counsel that the system had for years been undermaintained. It was shown, for example, that for the years 1911 to 1917 inclusive an average sum of six million dollars a year was expended for maintenance of ways and structures. For 1918 the expenditure under this heading was $11,600,000, for 1919, $17,000,000, and for 1920, $18,100,000. Counsel for the Government concluded therefore that these heavy expenditures (after making due allowance for increased cost of materials and labor) indicated the extent to which maintenance had been deferred. In addition they accepted the testimony of the Government engineers that deferred maintenance to the extent of millions still remained.

On the other hand, the Honorable Mr. Taft took the view that while failure to create reserves may have tended to show that the road was not in proper condition, yet from the evidence of eminent railway engineers and managers, there seemed no doubt that the roadway and equipment was in good condition for operation and that this was proved by its success in handling a heavy volume of traffic during the War without a break. He regarded the testimony of the engineers, whom the Department of Railways and Canals had sent out to report upon the road and its deficiencies, as an "enthusiasm of condemnation" that injured the weight of their evidence.[38]

Sir Thomas White, reviewing all the evidence in the case, reached the following conclusions:[39] (a) that the actual earning power of the Grand Trunk Railway Company of Canada, before, during and since the War, and, so far as can be estimated for the future, did not justify the assumption that any profits would, from the date of the acquisition by the Government, ever have been available for distribution to the holders

[38] *Ibid.*, p. 188.
[39] *Ibid.*, pp. 173 and 178.

thereof, after providing for the contingent liability of the company in respect of Grand Trunk Pacific securities guaranteed by the company and dividends upon the "guaranteed" stock; (b) that having regard to its own continuing heavy deficits, to the necessity for making provision for deferred and extraordinary maintenance and capital construction (estimated by Government engineers at $70,000,000), and to its heavy liabilities in respect of securities of Grand Trunk Pacific bearing its guarantee, the Grand Trunk Railway Company of Canada but for the financial support of the Government since May, 1920, must have been forced into receivership. He held, therefore, along with Sir Walter Cassels, that the preference and common stocks had no value.

The Honorable Mr. Taft's opinion was based for the most part on a statistical analysis of the trend of past earnings.[40] He found that the ton mileage of revenue freight of the company increased from 3,143,687,000 in 1910 to 5,028,650,000 in 1920, or at the rate for the ten years of 60 per cent or six per cent a year. Likewise operating revenues increased from $36,000,000 in 1910 to $81,400,000 in 1920. The operating revenues for 1919 were nearly $70,000,000, for 1920, $81,000,000, and for 1921 they were estimated to amount to $72,000,000. Therefore, taking this latter figure and allowing for an increase of five per cent a year, he estimated the operating revenues in 1926 would be $90,000,000. Having previously figured the average operating ratio from 1910 to 1916 as approximately 75, he therefore concluded that the net operating surplus available for fixed charges and dividends in 1926 would be $22,500,000. The fixed charges, including interest on four per cent guaranteed stock, and interest on the guaranteed Grand Trunk Pacific bonds, according to Mr. Taft's estimate, amounted to a total of $20,075,000 which left a surplus of $2,425,000 available for dividends on the three preferred stocks and the common stock. Estimating, however, that dividends might not have been available for five years, he allowed for a deduction of 25 per cent and arrived

[40] *Ibid.*, pp. 202-4.

finally at a capital sum of $48,000,000 as the value of the three preferred stocks and the common stock.

An appeal from the majority award was taken by the Grand Trunk shareholders to the Judicial Committee of the Privy Council in England. The principal question involved was one of law, namely, whether the decision of the majority of the arbitrators in excluding, as inadmissable, evidence of the value of the company's physical assets was legally correct. The decision of this tribunal on July 28, 1922, dismissed the appeal and supported the verdict of the majority award of the board of arbitration.[41] The basis upon which the Judicial Committee reached its conclusion was that the valuation of the stocks had to be determined on the ground that the railway was acquired and would be carried on as a going concern. The entire undertaking was to be assumed and continued in operation as a profit-making concern, and therefore the value of the stock should be ascertained on the basis of net earning capacity. As a system the net earning capacity was nothing and consequently the stocks had no value.[42] Since both the Canadian Northern and the Grand Trunk were taken over as "going concerns" the question may well be asked why the same criterion of value was not applied to both. Regardless of the propriety of either criterion, physical value or earning power, the fact remains that the Government left itself open to criticism by not insuring that the same criterion or principle of value should be utilized in each instance.

As a result of the Grand Trunk arbitration award and the subsequent decision of the Judicial Committee of the Privy Council thereon, the shareholders of the Grand Trunk made an appeal to the Canadian Government for what Sir Walter Cassels, in his judgment, had termed "equitable and moral consideration," or in other words, "compassionate allowance."[43] The Government referred the representations of the shareholders to a committee for examination. Finally, on the basis

[41]Sessional Paper No. 32, 1923, p. 17.

[42]*Monetary Times,* Vol. 70, January 5, 1923, p. 166.

[43]*Memorial on Behalf of the Preference and Common Stockholders of the Grand Trunk Railway Company of Canada to the Prime Minister of Canada,* November 27, 1922. Sessional Paper No. 233, 1923.

of its report, the Government replied, that in view of the heavy deficits on the National System, it could hold out no hope for "compassionate allowance."[44]

The preference and common stockholders, whose securities were now automatically wiped out, were greatly dissatisfied. Feeling was so strong among the stockholders that a resolution was moved to boycott Canadian borrowings in the London money market. The resolution, however, was subsequently withdrawn.[45] However, the shareholders made serious charges against the Canadian Government. Their contentions were:[46] first, that their losses, due to the failure of the Grand Trunk, were caused by the Grand Trunk having been compelled to enter into a contract with the Government for the construction of the Grand Trunk Pacific and the eastern extension of the National Transcontinental; second, that the Canadian Government confiscated the property of the Grand Trunk shareholders; third, that the Government refused to allow the railway company to increase its rates to meet the increased cost of operation; fourth, that the arbitration board, which found the stocks valueless, was biased by having a majority of Canadians; and fifth, that the treatment accorded to the Canadian Northern when it was taken over was more favorable than that accorded to the Grand Trunk, because the former was a Canadian company.

In answer to these accusations the Government issued a reply which gave a brief account of the Grand Trunk Pacific agreements and the "lapses by the company in carrying out these agreements."[47] These included the refusal to take over the National Transcontinental, and the failure to complete a lease of the National Transcontinental Railway from Superior Junction to Winnipeg on the completion of the Lake Superior Branch of the Grand Trunk Pacific. The charge of confiscation was dealt with and the extent of the Government loans and advances was given in detail. "Rescue," it was remarked,

[44] *Ibid.* For a description of these incidents see Jackman, *op. cit.*, pp. 694-8.
[45] *Canadian Annual Review*, 1923, pp. 364-5.
[46] As summarized by Jackman, *op. cit.*, pp. 694-5.
[47] *Canada and the Grand Trunk; Statement of the Mutual Undertakings Involved; Material Errors Corrected.* Issued by the Department of Railways and Canals, 1923.

"is surely a more fitting term than confiscation."[48] The individual accusations were replied to as follows:[49] First, that the Englishman, as a rule, is a "good sport" and that if he bought some shares in a Canadian railway, and these depreciated in value he should not expect the Dominion Government to make good his losses. Moreover, the contract between the Government and the Grand Trunk for the construction of the Grand Trunk Pacific was entered into voluntarily and deliberately by the two parties and was in no sense forced upon the Grand Trunk. Second, that the Dominion Government did not confiscate the Grand Trunk property, as shown by the fact that after the Government had given assistance again and again to the company, the latter admitted its inability to carry on and the Government took over the property under a contract voluntarily made with the London directors. Third, that railway rates are regulated by the Board of Railway Commissioners, which gave equal treatment to all railways. Fourth, that the Government appointed one member of the board of arbitration and the Grand Trunk another; and that these two agreed upon the chairman of the board. No fairer method of choosing arbitrators could be found. In addition, the board's decision was upheld by the Judicial Committee of the Privy Council, the highest tribunal in the Empire. Fifth, that the payment of $10,000,000 to the Canadian Northern was made upon the recommendation of a properly constituted board of arbitration "and their award must be accepted as the conclusion of three of Canada's ablest men on a matter that admitted of great diversity of opinion."

The whole matter aroused a great deal of feeling in Great Britain in financial circles, which was reflected in several financial papers, particularly the *Financial Times,* London; and the London *Times,* which thought "that the government's action would injure Canada in the British money market."[50]

In contrast to the spirit of hostility of the shareholders of the Grand Trunk were the carefully drafted representations

[48]*Ibid.*, p. 15.
[49]As summarized by Jackman, *loc. cit.*
[50]*Canadian Annual Review,* 1923, pp. 364-5.

of another group of English shareholders in 1922.[51] These were the owners of the four per cent perpetual debentures of the Grand Trunk Pacific, who had not received any interest since the Grand Trunk Pacific went into receivership in March, 1919. Interest on these debentures had been guaranteed by the Grand Trunk Railway providing it had net income after meeting its own fixed charges. The chief contention of these shareholders was that their bonds constituted a claim prior to the four per cent guaranteed stock of the Grand Trunk. Yet, by the terms of the Grand Trunk Acquisition Agreement, the latter stock was receiving its dividend while the debentures of the Grand Trunk Pacific were not receiving any return. The point was also made that it was evident from the debates in the Canadian House of Commons that the arrangement for acquiring the Grand Trunk involved accepting the Grand Trunk Pacific debentures as a liability of the Government. However, if the liability for payment of interest was only that of the Grand Trunk Pacific and the Grand Trunk, it was argued that there must be no merging of the Grand Trunk or the Grand Trunk Pacific with any other lines, and no diversion of traffic or abandonment of lines, or mixing of equipment, since any of these acts would be prejudicial to the position of the debenture shareholders.

In its reply, the Government showed that its original offer to assume all the obligations of both companies was rejected and the final arrangement involved only the acquisition of the capital stock of the Grand Trunk.[52] The acquisition of these stocks by the Government and the inclusion of the guaranteed stock in the protected class in no way impaired the legal position of the Pacific debentures since as long as the earnings of the Grand Trunk were insufficient to cover the interest on the Pacific debentures, the guarantee of dividends on the guaran-

[51]Grand Trunk Pacific Railway 4 Per Cent Debenture Stock; *Representation from the Stockholders' Committee to the Prime Minister of Canada,* November 15, 1922. It is interesting to note that one of the members of this Committee of three was Sir William Acworth, who had been a Commissioner on the Railway Inquiry Commission of 1916.

[52]Grand Trunk Pacific Railway 4 Per Cent Debenture Stock; *Reply by the Government of Canada to the Representation from the Stockholders' Committee,* etc., July 6, 1923.

teed stock of the Grand Trunk was a charge on the Government and not on the Grand Trunk. Accordingly, the reply stated, the earnings of the Grand Trunk Pacific and the guarantee of the Grand Trunk was their only protection, and when the Grand Trunk had a surplus after paying fixed charges, the guarantee would be effective but in no case was there a claim against the Canadian Government.

A committee of these debenture holders continued negotiations and finally its efforts met with success. Under the terms of a settlement reached in September, 1926, the Canadian National Railway Company issued a new guaranteed two per cent debenture stock and by agreement exchanged it par for par for the troublesome debentures.[53] The plan provided also for an annual two per cent sinking fund to retire the issue. This arrangement proved satisfactory both to the railway and to the debenture holders. It guaranteed the latter a stable return in place of a very uncertain one, and it relieved the National Railways of the necessity of carefully separating the Grand Trunk results from the rest of the system.[54]

REASONS FOR NATIONALIZING THE GRAND TRUNK

The primary object of the acquisition of the Grand Trunk was to round out the existing Canadian National system so that it might be able to compete more effectively with the Canadian Pacific Railway.[55] Regardless of the wisdom or the necessity of the Government's action in taking over the Canadian Northern, it was an accomplished fact and subsequent policy must be considered in the light of it. The Canadian Northern and the Grand Trunk Pacific were comparatively well provided with facilities in the West, but were at a disadvantage in the East. The eastern traffic centres had to be opened to the national system if that system were to be put on

[53]Canadian National Railway System, *Annual Report,* December 31, 1926, p. 10.

[54]This debenture stock had received no interest from September 1, 1919 to March 1, 1923; then it received one year's interest and nothing more until the settlement was made. *Moody's Steam Railroads,* 1927, p. 1742.

[55]Budget Speech, Minister of Finance, Canada; House of Commons, Tuesday, May 18, 1920, pp. 17-19. Also see House of Commons Debates, Canada, November 3, 1919, p. 1732; and the *Canadian Annual Review,* 1920, p. 315.

an even competitive basis for through traffic. Thus the country was faced with the necessity either of providing new terminals at great cost in eastern cities, with attendant duplication of existing facilities, or of acquiring the Grand Trunk System.

Another reason for combining the Grand Trunk with the existing national system was to secure extensive operating economies through the co-ordination of the two properties. Superfluous trains would be eliminated, duplicate offices abolished, the number of officials reduced, and so forth.

Finally it was argued that the Grand Trunk System should be taken over, since it was financially insolvent and could not provide the funds necessary to pay its deficits and furnish necessary improvements. To be sure, if the Government had been willing to release the Grand Trunk from its guarantees of interest on securities of the Grand Trunk Pacific, it is possible that the directors of the Grand Trunk could have managed to prevent insolvency and receivership. However, the system would have remained in a weakened financial condition and would have experienced difficulty in raising new money for needed betterments.

The Government was severely criticized for this new step in the direction of public ownership by those who felt that it was wrong for the Government to extend its ownership of railways without a definite mandate from the people.[56] Others attacked the proposed acquisition because they were opposed to government ownership of railways on general principles.[57] On the other hand, the members of the cabinet were confident that the Government could operate the enlarged system successfully in the public interest if a competent board of management composed of men of the highest ability were appointed and if this board were given a free hand.

Following the acquisition of the Grand Trunk steps were taken for the consolidation of the various railways which were under government operation and control. The first move in

[56]*Canadian Annual Review,* 1918, p. 527.

[57]Lord Shaughnessy, President of the Canadian Pacific Railway Company, speaking on September 26, 1918, said: "The Government may feel that it must take over the Grand Trunk Pacific; but to take over the Grand Trunk, would in my opinion, be an act of stupendous folly." *Idem.*

that direction came on October 4, 1922, when the Government accepted the resignation of the existing boards of directors of the Grand Trunk and the Canadian National, and appointed a new board, with Sir Henry W. Thornton as chairman to act as the directorate of the enlarged Canadian National Railway System. The formal unification of the Grand Trunk System and the Canadian National Railways took place on January 30, 1923, when the present Canadian National Railway Company was organized to take over the properties of the Grand Trunk Railway Company.

The new management faced three primary problems in the reorganization and co-ordination of the properties:[58]

1. The determination of the kind of organization which was to be employed in the administration of the property;
2. The determination of the regions into which the property was to be divided for operating purposes and the location of regional and general headquarters;
3. The selection of officers for various posts involved in the organization.

1. *Organization.*

Practically all of the railways in England, Canada and the United States have either a "departmental" or a "divisional" organization. In the "departmental" system, the principal functions into which the operating department is divided, such as transportation, maintenance of way, maintenance of equipment, and construction, are administered through separate departments. Each has its own line of authority and responsibility extending from the supervisory officer in general charge of the department to the line forces. In the "divisional" system, authority over all of the major functions of the operating department is concentrated in one officer in each territorial subdivision, that is, the Division, the District, and the Region. In England the "departmental" system predom-

[58]Department of Railways and Canals, *Annual Report,* March 31, 1923. Sessional Paper No. 32, 1924, p. 15.

inates, and in Canada and the United States, the "divisional" system is in general use. The "divisional" system, already in effect on the Canadian National Railways, was continued under Sir Henry Thornton. Practically all other departments of the Canadian National, such as Traffic and Express, Finance and Accounting, Legal, Purchases and Stores, Subsidiary Companies, etc., were organized on a departmental basis.

2. *Operating Regions.*

For operating purposes the railway was divided into four regions: Atlantic, Central, Grand Trunk Western, and Western. The Atlantic region, with headquarters at Moncton, New Brunswick, included all lines in the Maritime Provinces as far west as Riviere du Loup, Quebec. The Central region included the Portland line and extended from Riviere du Loup to points at the head of the Great Lakes, with headquarters at Toronto, Ontario. The Grand Trunk Western included the lines in the United States west of Detroit, Michigan, with headquarters at Detroit. The western region extended from the head of the Great Lakes to the Pacific coast. A general manager was placed in charge of each region and was given, in the words of Sir Henry Thornton, "as much autonomy and local control in the actual operation of the property as was consistent with efficient principles of administration."[59]

3. *Official Personnel.*

It will be recalled that one of the reasons given for combining the Grand Trunk with the existing Canadian National was to secure operating economies part of which would result from the reduction in the number of railway officials. However, when the official personnel of the two railway systems were combined, supervisory and general costs were increased rather than reduced. Thus general expenses (less pensions and insurances) increased from $6,800,000 in 1922 to $7,429,000 in 1923, although by 1925 they were reduced to $6,405,000, from which level they increased slightly during the next four

[59] Canadian National Railway System, *Annual Report*, December 31, 1923, p. 12.

years. Similarly supervisory expenses (for maintenance of way, equipment, transportation and traffic) increased from \$9,346,761 in 1922 to \$9,680,943 in 1923. Unlike general expenses, expenses for the four supervisory groups continued to increase, reaching a peak of \$12,181,000 in 1929, which was \$2,834,000 higher than they had been prior to consolidation.

CHAPTER VIII

ANALYSIS OF CANADIAN RAILWAY OPERATIONS 1923-1933

BY the acquisition of the Grand Trunk lines the Canadian National gained important facilities in eastern Canada and the United States, and became a formidable competitor of the Canadian Pacific. In every respect the Canadian Pacific was a worthy rival for the enlarged government system. Its operating record throughout its history had been an enviable one. From the outset it had been an enterprise well conceived, ably administered and conservatively financed. It had long enjoyed a reputation for efficiency, not only with respect to its service, but also from an operating and financial standpoint. There is something unique in the rivalry of these two systems, not only because they represent opposite principles of ownership but because they parallel each other from coast to coast and operate in active competition for traffic at every important center of business. Moreover, competition between the two systems is not confined to their railway operations. It has long been the custom in Canada for railway companies to provide services which are furnished by independent companies in the United States. Both the Canadian Pacific and the Canadian National own and operate steamship lines, hotels and resorts, express companies, and commercial telegraph systems. Both own or control an extensive mileage in the United States. In addition they operate, throughout their lines, under practically identical rate structures.

In a general way it would be difficult to find two railway systems which lend themselves better to a comparison of their operating performance. To be sure, there are important differences between the two systems, which must be borne in mind in an analysis of their results of operation. Some of these

differences can be discussed most appropriately in connection with the comparative analysis of the main classes of their operating expenses, but at the outset it will be helpful to bear in mind their relative performance at the beginning of the period under review. In the year 1922 the Canadian Pacific had an operating ratio of 80.10 per cent, and since its properties had been conservatively financed, the net earnings of the system were adequate to provide for interest on its bonds and a reasonable dividend on its outstanding common stock. In the same year the Canadian National System inclusive of the Grand Trunk had an operating ratio of 98.46 per cent, with the result that there was a huge deficit after fixed charges. But the comparative disadvantage of the Canadian National can best be seen in the operating results of different parts of the system. The Canadian Northern had an operating ratio of 104.86 per cent, the Canadian Government Railways 106.10 per cent, the Grand Trunk Pacific 123.18 per cent, and combined they had an operating ratio of 108.10. The Grand Trunk System in the same year had an operating ratio of 87.81 per cent, and a deficit after fixed charges amounting to \$8,412,000. The 17,351 miles of line which constituted the Canadian National system before the acquisition of the Grand Trunk had railway operating revenues in 1922 of \$6,885 per mile as compared with \$14,110 per mile on the Canadian Pacific.[1]

The consolidation of the Grand Trunk and the Canadian National strengthened the government system greatly. For while the operating ratio of the Canadian National Railways exclusive of the Grand Trunk was 108.10 per cent in 1922, including the Grand Trunk it was 98.46 per cent. In 1923 the operating ratio of the System including the Grand Trunk was reduced to 91.78 per cent, reflecting economies resulting from the consolidation and in addition the easement from the

[1]Railway operating revenues of the Canadian National Railways (excluding the Grand Trunk Railway System) for the year 1922 were \$122,135,957. The Canadian Pacific Railway System had 14,564 miles of line and \$205,641,000 of railway operating revenues. The figures for the Canadian Pacific apply to the system as described in footnote 6.

burden of special charges and rehabilitation incurred in 1922.[2] This reduction in the operating ratio in 1923 may be compared with a slight increase in the operating ratio of the Canadian Pacific in the same year. Despite this improvement in its operating results, many factors continued to affect the Canadian National adversely in comparison with the Canadian Pacific. It had a larger mileage of light traffic lines; its property and equipment were in poorer physical condition and over wide competitive areas it still had its reputation to make with the shipping and travelling public. Moreover, from the standpoint of economical operation, the public ownership of the property had its disadvantages. For example, when the Grand Trunk System was combined with the Canadian National Railways there should have been a decrease in general and supervisory expenses. Instead, these expenses increased in 1923 by more than $1,000,000 largely because political considerations were allowed to determine the organization of the system into four operating regions, each a self-contained unit in so far as supervisory staff was concerned. In contrast the Canadan Pacific (with a smaller mileage to be sure) had two operating regions. Another illustration was the situation respecting locomotive and car repair shops. Since the Canadian National System was a combination of railways, it had on its hands locomotive and car shops which were originally designed to serve several independent companies. In the interests of economy some of these shops should have been closed or operations therein curtailed, so as to obtain a greater centralization of repair work. Yet on grounds of "general policy" this was not done.

The principal disadvantage suffered by the Canadian National, from the standpoint of more economical operations, was that it set out to compete with the well-established Canadian Pacific, and no steps were taken to prevent an extravagant attempt to outrival the service of the private company. At the beginning of the period under review the Canadian Pacific was

[2]The operating expenses for 1922 included a special charge of $4,490,000 to set up a reserve for rebuilding equipment which had no counterpart in 1923 and operating revenues in 1923 were $21,000,000 higher than in 1922. Canadian National Railway System, *Annual Report,* 1923, p. 6.

in prosperous financial condition. It had a profitable freight business and a fairly lucrative passenger service. The standards of its maintenance work and the character of its freight and passenger services were carefully tuned to the earnings of its lines. Naturally the Canadian National, with gross earnings per mile of line which were 13.7 per cent less than those of the Canadian Pacific, could not afford the same high standards of maintenance and services as the Canadian Pacific. Yet the facts show that the Canadian National soon began to determine the standards of its services and hence its expenses less on what it could afford than upon the standards and services in effect on the Canadian Pacific. An outstanding example of this was its policy with respect to the transcontinental passenger service. Following co-ordination in 1922, there was a marked expansion in the passenger train mileage of the Canadian National. Schedules in competitive services were expanded and speeded up. In 1927 it placed in service a second daily transcontinental train, although there was already available a choice of Canadian Pacific trains, in addition to its own existing service. The effect of this policy was to decrease the earnings per train mile of both railways. If it had been held within reasonable bounds there was some excuse for improving the passenger service of the Canadian National. Before Sir Henry Thornton's administration the passenger service of the Canadian National was very poor, since Mr. Hanna's policy was to concentrate on the freight business and leave the bulk of the competitive passenger business to the Canadian Pacific[3], which had handled it for many years. The new administration evidently felt that its ability to compete for freight traffic was dependent on improving the reputation of its passenger service. Yet, while it cannot be denied that the improvement in its passenger service increased the morale of its employees and as has been said frequently, "made a railway system out of the Canadian National," it appears that the Canadian National tried to equal the performance of the Canadian Pacific in too short a time and much too aggressively. If the dangers inherent in this sit-

[3]*Proceedings* of the Standing Committee on Railways, Telegraphs and Harbours on Bill A, The Senate of Canada, February 1, 1933, Testimony of Mr. D. B. Hanna, p. 184.

uation had been generally recognized, co-operative measures and other safeguards might have been taken early enough to prevent the wasteful competition which soon developed between the two railways, one financially powerful and the other backed by the public treasury. Naturally the management of the Canadian Pacific has maintained that the competition was unfair in so far as the Canadian National was able to pursue policies of improvement and expansion on the basis of public credit which would not have been available to a private corporation. This does not infer that the policies of the Canadian National were malicious or intentionally unfair, although they were financially unsound both for the Canadian National and for the Canadian Pacific because the available traffic was not sufficient to support such a duplication of expensive services and facilities as took place during the period.

Relatively little space was given to a comparative analysis of operating efficiency in the recent Royal Commission report. There were some general conclusions mostly unfavorable to the Canadian National, which evidently represented the considered judgment of the Commission after a study of a voluminous record of statistical and personal testimony.[4] But none of this elaborative material was included in the Commission's report, consequently both the reasons for the Commission's views and the basis for the formation of an independent judgment were lacking. Yet such an analysis is fundamental, since a correct conception of the nature of the Canadian railway problem and the means of its solution is difficult if not impossible unless every phase of railway operations during the past decade is studied.

COMPARATIVE MILEAGE

Canada has the smallest population per mile of railway of any country in the world. Her population per mile of railway is less than half that of the United States, although average ton-mile and passenger-mile rates are slightly lower in Canada than in the United States. Indeed a large part of the Canadian railway problem lies in the fact that the Canadian people enjoy

[4]For the Commission's views, see Chapter XI, pp. 264-5.

TABLE 1

Total Railway Mileage in Canada, December 31, 1931[5]

Steam Railway Mileage	*First Main Track*	*Population*	*Population per Mile of Track*
Prince Edward Island	286	88,038	308
Nova Scotia	1,418	512,846	362
New Brunswick	1,934	408,219	211
Quebec	4,926	2,874,255	583
Ontario	10,905	3,431,683	315
Manitoba	4,419	700,139	158
Saskatchewan	8,268	921,785	111
Alberta	5,656	731 605	129
British Columbia	4,097	694,263	169
Yukon	58	4,230	73
North West Territories	—	9,723	—
In United States	341	——	—
	42,308	10,376,786	245

TABLE 2

First Track Mileage* of The Canadian National and Canadian Pacific Railway Systems on December 31, 1931

	Can. Nat.	*Can. Pac.*	*Total*
Lines in Canada:			
Prince Edward Island	286.05	——	286.05
Nova Scotia	1,007.66	288.36	1,296.02
New Brunswick	1,259.64	625.50	1,885.14
Quebec	2,975.86	1,660.90	4,636.76
Ontario	5,979.73	3,359.70	9,339.43
Manitoba	2,471.32	1,765.20	4,236.52
Saskatchewan	4,274.59	3,993.10	8,267.69
Alberta	2,184.99	2,574.90	4,759.89
British Columbia	1,415.37	1,980.80	3,396.17
Trackage Rights	154.68	238.36	393.04
Total Lines in Canada	22,009.89	16,486.82	38,496.71
Lines in United States:			
Canadian National (Rouses Point, etc.)	71.88		
Atlantic & St. Lawrence (Portland, Me.)	172.21		
Duluth, Winnipeg & Pacific	176.37		
Central Vermont	428.81		
Grand Trunk Western	1,021.45		
Lines in Maine and Vermont		324.28	
Total Lines in United States	1,870.72	324.28	2,195.00
Grand Total System Mileage	23,880.61	16,811.10	40,691.71

*Excludes Electric Lines.

[5]Dominion Bureau of Statistics, *Statistics of Steam Railways of Canada.*

the lowest freight rate structure in the world and at the same time there exists a large mileage of light traffic lines. Some of this mileage is in territory which will subsequently develop to support the lines, but some of the mileage should be, and no doubt ultimately will be, abandoned.

The steam railway mileage by provinces, and the population per mile of railway at the end of 1931 are shown in Table 1.

The concentration of railway ownership in Canada is indicated by the fact that the Canadian mileage of the two railways amounts to about 91 per cent of the total railway mileage of Canada. Table 2 shows the comparative mileage of the Canadian National and the Canadian Pacific in Canada and in the United States at the end of 1931.

The Canadian Pacific also controlled at that time, through ownership of over one-half of the voting stock, the Minneapolis, St. Paul and Sault Ste. Marie Railway, the Duluth, South Shore and Atlantic Railway, and the Spokane International Railway, a total of 5,160 miles. These lines are operated under entirely separate managements, and are not included in the operating returns of the Canadian Pacific System.

During the period under review, 1923 to 1931, the Canadian National operated about 44 per cent more mileage than the Canadian Pacific. The location of the lines of each railway and the way in which they parallel each other from coast to coast and meet at every important city or town can best be appreciated by referring to a railway map of Canada.

COMPARATIVE REVENUES AND EXPENSES

A comparison of the operating revenues and expenses of the two railways for the nine years (1923-1931 inclusive) will serve to bring out certain broad general relationships as a point of departure for further analysis.[6]

[6]A detailed comparison of the operating and financial results of these two railways on the basis of their published annual reports or from their reports filed with the Dominion Bureau of Statistics is well-nigh impossible, partly because the published statistics of the Canadian National System have not been on a comparable system basis for the entire period under review, e.g., the Central Vermont Railway was included in 1926 and then excluded until February 1, 1930, and beginning July 1927 the Eastern Lines of the Canadian National were reported separately from the rest of the system under the terms of the Maritime Freight Rates Act. As for the Canadian Pacific, its published reports are

TABLE 3

COMPARATIVE EARNINGS 1923-31

	Canadian National	*Canadian Pacific*	*Excess C.N. over C.P. Per cent*
Average mileage operated	22,461	15,631	43.7
Total freight ton miles (millions)	185,028	143,627	28.8
Passenger miles (millions)	12,113	11,036	9.8
Total revenue train miles	538,611,070	433,948,133	24.1
Revenue			
Transportation of—			
Freight	$1,714,051,687	$1,278,281,397	34.1
Passengers	321,530,922	303,421,444	6.0
Mail	33,158,717	34,177,966	—3.0
Express	124,337,077	97,887,917	27.0
Other services, including telegraph, storage, freight, and baggage, demurrage, switching, etc.	144,715,491	172,034,966	—15.9
Total Operating Revenue	$2,337,793,894	$1,885,803,690	24.0
Deduct Operating Expenditures			
Maintenance of roadway and structures	$ 433,085,344	$ 279,021,976	55.2
Maintenance of rolling stock	449,367,762	319,010,624	40.9
Sundry traffic expenses, solicitation of business, publishing and filing tariffs, etc.	66,025,579	54,375,038	21.4
Transportation expenses, including wages of train crews, locomotive fuel, services at stations, etc.	1,023,650,171	745,349,913	37.3
Miscellaneous operations, including dining service, grain elevator operation, etc.	21,913,637	32,996,863	—33.6
General expenses, including salaries and expenses of officers and clerks, etc., legal expense, etc.	73,162,366	43,170,152	69.5
Less credit for that portion of these expenses incurred in making improvements, trains carrying construction materials, etc.	10,622,812	705,838	
Total Operating Expenses	$ 2,056,582,047	$ 1,473,218,728	39.6
Net Operating Revenue	281,211,847	412,584,962	—31.8

not sufficiently detailed for comprehensive comparative analysis and they excluded, during most of the period, the operations of seven or eight railway subsidiaries which were in fact part of the Canadian Pacific System. These difficulties were recognized by the recent Royal Commission, which retained an expert railway accountant to obtain statistics from the two railways on a comparable basis for the purpose of analyzing their operations. The statistics used in this chapter are from the detailed statistical exhibits prepared with great care by each railway for the Royal Commission. The Canadian Pacific System accounts and statistics were filed on a basis comparable with those of the Canadian National, and include besides the Canadian Pacific Railway proper the following subsidiaries: Dominion Atlantic Railway, Esquimalt and Nanaimo Railway, Fredericton and Grand Lake Coal and Railway, Kettle Valley Railway, New Brunswick Coal and Railway, and Quebec Central Railway in all years, and the Algoma Eastern Railway from July 1, 1931. The figures for the Canadian National include the Eastern Lines of the system for the entire period and the Central Vermont Railway from February 1, 1930. All of the figures used and the calculations have been checked with care by an assistant and others who had access to the original underlying data.

Expenditures Deducted from Net Operating Revenue	*Canadian National*		*Canadian Pacific*	*Excess C.N. over C.P. Per cent*
Taxes	45,426,397		47,980,820	—5.3
Uncollectible revenue written off	444,313		293	
Rentals for rolling stock hired less rentals received from others	Dr. 23,794,451	Cr.	15,443,971	
Rentals paid less rentals received in connection with properties used jointly with other carriers	Dr. 576,417	Cr.	271,936	
Total expenditures deducted from operating surplus	70,241,578		32,265,206	
Net railway operating income	210,970,269		380,319,756	—44.5
Net income from properties not part of transportation plant but connected thereto; e.g., hotels, steamships, etc., also profit and loss adjustments which affected the income of the period	8,759,749		54,698,993	
Amount available for payment of interest and dividends	$ 219,730,018		$ 435,018,749	—49.5
Interest paid on securities in hand of public	387,782,775		122,138,771	217.5
	Dr. $168,052,757	Cr.	$312,879,978	
Interest accrued on Dominion Government loans	288,010,438			
Surplus available for dividends			$312,879,978	
Deficit after interest	$456,063,195			

It will be observed that while the Canadian National had about 44 per cent more road mileage than the Canadian Pacific, its total freight revenue for the perod was only 34.1 per cent greater than that of the Canadian Pacific, passenger revenue 6 per cent, and total revenue 24.0 per cent greater. On the other hand, with only 28.8 per cent more freight ton miles, the Canadian National had the advantage of 34.1 per cent more freight revenue, and with 24.0 per cent more total revenue it operated 24.1 per cent more revenue train miles. Total operating expenses of the Canadian National were, however, 39.6 per cent greater than those of the Canadian Pacific, as compared with 28.8 per cent more freight ton mileage and 9.8 per cent more passenger miles. Taxes on the Canadian National totalled $45,426,397, of which $15,555,421 were paid in the United States and $29,870,976 in Canada, as com-

pared with $47,980,820 for the Canadian Pacific, of which $46,330,411 were paid in Canada and $1,650,409 in the United States. The greater earning power of the Canadian Pacific System per mile of line was reflected in the amount available for interest and dividends, which was almost double that of the Canadian National. Interest charges on Canadian National securities in the hands of the public were more than three times the interest charges of the Canadian Pacific, and including interest due the Government were more than five times as great. For the period, which included two years of the depression, the Canadian National earned somewhat more than one-half of the interest charges on securities in the hands of the public, while the Canadian Pacific earned more than three and one-half times its interest charges.

More significant than the aggregate earnings for the period was the trend of earnings and expenses and the resulting operating ratios for each railway. Table 4 gives the total operating revenue and expense figures for the two railways for each year 1922 to 1933 inclusive. Detailed net income results for the

TABLE 4

RAILWAY OPERATING REVENUES AND EXPENSES AND OPERATING RATIOS 1922-33

	Canadian National Railway System*			Canadian Pacific Railway System		
Year	*Railway Operating Revenues*	*Railway Operating Expenses*	*Operating Ratio Per Cent*	*Railway Operating Revenues*	*Railway Operating Expenses*	*Operating Ratio Per Cent*
1922	$235,736,000	$232,116,000	98.46	$205,641,000	$164,725,000	80.10
1923	256,962,000	235,838,000	91.78	212,218,000	171,903,000	81.00
1924	239,597,000	221,622,000	92.50	197,546,000	159,056,000	80.52
1925	249,412,000	216,290,000	86.72	201,177,000	155,493,000	77.29
1926	270,982,000	223,561,000	82.50	217,360,000	164,743,000	75.79
1927	274,879,000	233,305,000	84.88	221,421,000	173,817,000	78.50
1928	304,591,000	249,732,000	81.99	251,567,000	189,603,000	75.37
1929	290,497,000	248,632,000	85.59	233,340,000	180,405,000	77.31
1930	250,369,000	228,288,000	91.18	196,212,000	153,751,000	78.36
1931	200,505,000	199,313,000	99.41	154,963,000	124,449,000	80.31
1932	161,104,000	155,208,000	96.34	130,651,000	105,555,000	80.79
1933	148,520,000	142,813,000	96.16	120,931,000	94,871,000	78.45

*Central Vermont is included from February 1, 1930.

period are presented near the end of the chapter. To facilitate analysis, these revenue and expense figures are expressed in Table 5 in terms of index numbers, taking the figures for the year 1923 as the base of 100.[7]

TABLE 5

INDEX NUMBERS OF RAILWAY OPERATING REVENUES AND EXPENSES 1923=100

	Canadian National System*			Canadian Pacific System		
Year	*Revenues* 1923 : 100	*Expenses* 1923 : 100	*Operating Ratio*	*Revenues* 1923 : 100	*Expenses* 1923 : 100	*Operating Ratio*
1923	100.0	100.0	91.78	100.0	100.0	81.00
1924	93.2	94.0	92.50	93.1	92.5	80.52
1925	97.1	91.7	86.72	94.8	90.5	77.29
1926	105.5	94.8	82.50	102.4	95.8	75.79
1927	107.0	98.9	84.88	104.3	101.1	78.50
1928	118.5	105.9	81.99	118.5	110.3	75.37
1929	113.1	105.4	85.59	110.0	104.9	77.31
1930	97.4	96.8	91.18	92.5	89.4	78.36
1931	78.0	84.5	99.41	73.0	72.4	80.31
1932	62.7	65.8	96.34	61.6	61.4	80.79
1933	57.8	60.6	96.16	57.0	55.2	78.45

*Central Vermont included from Feb. 1, 1930.

Table 5 demonstrates clearly the manner in which Canadian Pacific expenses are adjusted in accordance with revenue. Both the revenues and expenses of the two railways rose to a peak in 1928. In that year revenues of each railway were 118.5 per cent of 1923, but the Canadian Pacific expenses were 110.3 per cent as compared with 105.9 per cent for the Canadian National. On the other hand, when revenues dropped sharply in 1929, the expenses of the former responded immediately, whereas the decrease in the expenses of the latter in that year was negligible. In other words, the Canadian Pacific appears to have controlled its expenditures closely in relation to its revenue and the traffic offering, and through liberal maintenance expenditures in good traffic years was able to reduce its expenses and maintain its operating ratio when this became necessary.

[7]1923 is taken as the base year for purposes of comparing the operating record of the two railways, because that was the first year in which the Grand Trunk System was coordinated with the Canadian National Railways.

Curtailment of operating expenses was not begun as early by the Canadian National, and as a result its operating ratio rose to 99.4 per cent in 1931, with a slight improvement in 1932 and 1933.

Commenting on the operating ratios of the two companies for the period 1923-1931, the recent Royal Commission stated its conclusion that: "an analysis and comparison of accounts of both companies, with due regard to the considerations put forward by the Canadian National as adversely affecting their operations, do not, in our opinion, justify the very considerable difference in the operating ratios of the two systems."[8] As already stated, the Commission's report gave no reasons for the conclusion, but it will be useful to bear it in mind in connection with the analysis of operating expenses which follows a brief presentation of comparative freight and passenger traffic statistics.

FREIGHT AND PASSENGER TRAFFIC COMPARISONS

A larger percentage of operating revenues is provided by freight traffic on the Canadian National than on the Canadian Pacific. The distribution of revenues by classes of service for the nine-year period follows in Table 6.

TABLE 6

ANNUAL AVERAGE DISTRIBUTION OF REVENUES 1923-31

	Canadian National*		Canadian Pacific	
	Operating Revenues Per Mile of Line	*Percentage Distribution of Revenues*	*Operating Revenues Per Mile of Line*	*Percentage Distribution of Revenues*
Freight	$8,479.03	73.32	$9,086.43	67.79
Passenger	1,590.54	13.75	2,156.82	16.09
Mail	164.03	1.42	242.95	1.81
Express	615.07	5.32	695.82	5.19
Other	715.88	6.19	1,222.88	9.12
Total	$11,564.55	100.00	$13,404.90	100.00

*Central Vermont included from Feb. 1, 1930.

[8]Royal Commission to Inquire into Railways and Transportation in Canada, *Report*, 1931-2, p. 50.

The Canadian National had lower freight and passenger earnings per mile of line than the Canadian Pacific, but the disparity in passenger earnings was greater than in freight earnings. This fact accounted for the larger proportion of freight earnings to the total in the case of the Canadian National. In this connection it may be noted that the disadvantage to the Canadian National of its low passenger traffic density was accentuated as a result of its policy of expanding its passenger train service in the face of the heavy operating losses which were being sustained in that branch of its service.

Table 7 gives the ton mileage of revenue freight for the two systems and shows that in spite of the intense rivalry of the period there was little change in the proportion of traffic handled by the two companies. The marked increase in traffic in 1928 and the disastrous decline after 1929 is shown to have affected both railways to about the same extent.

TABLE 7

TON MILES OF REVENUE FREIGHT 1923-33

Year	*Canadian National**	*Index No.* 1923=100	*Canadian Pacific*	*Index No.* 1923=100
1923	18,615,107,000	100	14,567,335,000	100
1924	16,932,406,000	91	12,717,279,000	87
1925	18,026,790,000	97	13,364,032,000	92
1926	19,242,575,000	103	14,187,770,000	97
1927	19,464,850,000	105	14,870,135,000	102
1928	22,587,503,000	121	18,423,465,000	126
1929	19,375,522,000	104	14,950,579,000	103
1930	16,874,333,000	91	12,370,222,000	85
1931	14,609,738,000	78	10,793,153,000	74
Average 1923-31	18,414,314,000	99	14,027,108,000	96
1932	12,817,509,000	69	10,067,420,000	69
1933	11,550,194,000	62	9,353,118,000	64

*Central Vermont included from Feb. 1, 1930.

Passenger traffic in Canada has been subjected to the same depressing influences in the past decade as in the United States although to a minor degree until 1931. Table 8 shows the passenger mileage of the two companies. In examining the figures one should bear in mind that the most important

sources of the Canadian National are in the industrial East, where there is a certain amount of stability in passenger traffic even in times of depression, whereas a much greater proportion of the Canadian Pacific traffic is trans-continental in nature, a type of travel which is a luxury to most people and which, consequently, suffers during hard times. Unquestionably, considering the light passenger traffic density of the Canadian railway lines, particularly on the Canadian National, and the declining trend of the passenger business, every possible step must be taken to eliminate unnecessary or duplicate services so as to secure a lowering of the costs of operation.

TABLE 8

PASSENGERS CARRIED ONE MILE, 1923-33

Year	*Canadian National**	*Index No.* 1923=100	*Canadian Pacific*	*Index No.* 1923=100
1923	1,446,779,000	100	1,400,936,000	100
1924	1,372,335,000	95	1,282,194,000	92
1925	1,379,978,000	95	1,307,329,000	93
1926	1,437,548,000	99	1,313,869,000	94
1927	1,483,084,000	103	1,328,323,000	95
1928	1,514,260,000	105	1,377,375,000	98
1929	1,401,136,000	97	1,256,685,000	90
1930	1,211,786,000	84	1,026,455,000	73
1931	865,846,000	60	742,724,000	53
Average 1923-31	1,345,861,000	93	1,226,210,000	88
1932	686,128,000	47	644,797,000	46
1933	664,977,000	46	613,760,000	44

*Central Vermont included from Feb. 1, 1930.

ANALYSIS OF OPERATING EXPENSES

MAINTENANCE OF WAY AND STRUCTURES

Total expenses under this heading for the nine years, 1923 to 1931 inclusive, were $433,085,000 for the Canadian National and $279,022,000 for the Canadian Pacific. The Canadian National spent 55.2 per cent more than the Canadian Pacific although its average mileage was only 43.7 per cent greater and its traffic density was lower. The expenditure per mile of line for the Canadian National was $19,281.39, and for the Canadian Pacific $17,850.44 or an excess for the Canadian National of 8.02 per cent. In order to give proper weight to the differences in the track mileage of the two systems, a better basis for comparing maintenance of way expenses is the

equated track mile. On this basis, maintenance of way expenses of the Canadian National were 11 per cent more than those of the Canadian Pacific for the period. This difference might have been caused by one or more of the following factors: (1) that the Canadian National was forced to make up maintenance deferred from previous years, (2) that it was bringing its properties to a higher standard so as to compete on a more equal basis with the Canadian Pacific, (3) or that its money was spent less economically to obtain a given result. Further analysis is necessary before a conclusion may safely be drawn.

In regard to the physical condition of the Canadian National at the beginning of the period, there is an apparent inconsistency in the fact that whereas the officers in their testimony before the Royal Commission in 1932 stated that the properties on the whole had been badly run down ten years before and required an intensive program of renovation, the annual report of the Canadian National for the year 1922 said that the lines of the system were in "excellent physical condition." An examination of the maintenance of way expenses for the four years prior to 1923, using the Canadian Pacific as a yardstick, should throw some light on these conflicting statements. From 1919 to 1922 the maintenance of way expenses per equated track mile for the aggregate of the lines which form the Canadian National were 13.4 per cent greater than those of the Canadian Pacific. The comparison is as follows:

EXPENSES FOR MAINTENANCE OF WAY AND STRUCTURES PER EQUATED TRACK MILE

	*Canadian National System**	*Canadian Pacific Railway*
1919	$1,914	$1,763
1920	2,418	1,982
1921	2,009	1,765
1922	1,785	1,654
Average 1919-22	$2,031	$1,791

Ratio Canadian National to Canadian Pacific—113.4%

*The figures for the Canadian National in this table were for the System including the Grand Trunk Railway System. *Cf.* Chapter VI, p. 84.

In view of the lighter density of traffic on the lines of the Canadian National, it would seem that a large part of the deferred maintenance which existed in 1920 must have been provided for in the expenditures between 1920 and 1922. Clearly another explanation of the high maintenance expenses of the Canadian National for the period 1923-1931 must be sought.

To determine whether the properties of the Canadian National were being built up to a higher standard of maintenance, the first step is to compare the various items of maintenance expense for the two railways. This is done in Table 9, which gives the average annual expense per mile of road for maintenance of way items.

TABLE 9

AVERAGE ANNUAL EXPENSE PER MILE OF ROAD FOR MAINTENANCE OF WAY, 1923-31

	Canadian National	*Canadian Pacific*
Superintendence	$ 155	$ 82
Track Maintenance	1,521	1,425
Station and Office Buildings	81	98
Shops and Engine Houses	68	62
Telegraph and Telephone Lines	57	57
Removal of Snow and Ice	86	76
Other Expenses	214	178
Joint Tracks and Facilities	cr. 40	5
Total	$2,142	$1,983

It will be noted that the significant differences are in the superintendence and track maintenance items, and "other" expenses. Superintendence expense will be considered at a later stage in connection with an analysis of the total supervisory expenses of the two systems. It will suffice to say at this point, however, that the superintendence expenses of the Canadian National for maintenance of way and structures were excessive. These costs were 1.53 per cent of total operating expenses, as compared with 1.28 per cent for Class I railroads of the United States and .779 per cent for the Canadian Pacific.

Table 10 gives an analysis of track maintenance expense in the form of the average annual expense per mile of road for the various items of track maintenance.

TABLE 10

AVERAGE ANNUAL EXPENSE PER MILE OF ROAD FOR TRACK MAINTENANCE, 1923-31

	Canadian National	*Canadian Pacific*
Roadway Maintenance	$ 212	$ 245
Bridges, Trestles and Culverts	128	110
Ties	335	289
Rails	152	105
Other Track Material	101	94
Ballast	31	54
Track Laying and Surfacing	562	528
	$1,521	$1,425

The Canadian Pacific spent annually $56 more per mile of line for roadway maintenance and ballast than the Canadian National, while the Canadian National spent $152 more per year per mile of line for the other track maintenance items which principally relate to materials. Thus the Canadian National paid relatively more per mile of line for tie renewals, rail renewals and the repair of bridges.

The conclusion that may reasonably be derived from the foregoing analysis of the individual items of maintenance cost is that the Canadian National was apparently bringing its properties up to a higher standard of maintenance as compared with its previous standards. This is shown by the nature of the items for which it spent more than the Canadian Pacific. The explanation of the program of higher maintenance standards is to be found partly in the improvement and expansion of the passenger service and in the acquisition of heavier power equipment. The three went together, for heavier equipment and faster passenger trains meant that the standards of maintenance all along the line had to be improved. In view of the lower earnings per mile of line on the Canadian National, there is a strong suggestion that on many of its lines a standard of maintenance was attempted beyond the existing needs of the traffic and at an expense which was disproportionate to the advantages achieved.

EXPENSES FOR MAINTENANCE OF EQUIPMENT

The expenditures of the two systems for maintenance of equipment for the nine years, 1923 to 1931, were as follows:

TABLE 11

Expenses for Maintenance of Equipment 1923-31

	Canadian National	*Canadian Pacific*	*Excess C.N. over C.P. Per cent*
Repairs to Rolling Stock			
Locomotives	$152,521,000	$ 88,243,000	72.8
Freight train cars	146,522,000	104,573,000	40.1
Passenger train cars	58,259,000	47,272,000	23.2
Work equipment	15,692,000	8,484,000	85.0
Total Repairs	$372,994,000	$248,572,000	50.1
Overhead Expenses			
Superintendence	$ 16,609,000	$ 5,806,000	186.2
Shop machinery	12,345,000	11,899,000	3.7
Other expenses	11,926,000	4,346,000	174.4
Total Overhead	$ 40,880,000	$ 22,051,000	85.4
Total Repairs, including overhead	$413,874,000	$270,623,000	52.9
Renewals, retirements and depreciation	35,494,000	48,388,000	—26.6
Grand Total	$449,368,000	$319,011,000	40.9
Ratio of expenses for maintenance of equipment to operating revenues	19.2%	16.9%	

In examining the expenses in Table 11 the following relative operating statistics for the period under review should be noted:

	Canadian National	*Canadian Pacific*	*Excess C.N. over C.P. Per cent*
Locomotive miles	705,198,295	551,941,680	27.8
Freight train car miles	11,488,228,978	8,144,367,359	41.1
Passenger train car miles	1,597,339,757	1,391,364,430	14.8
Train miles	538,611,070	433,948,133	24.1
Average mileage operated	22,461.3	15,631.1	43.7

The cost of maintaining equipment on the Canadian National was 19.2 per cent of gross revenues as compared with 16.9 per cent on the Canadian Pacific. In the aggregate the

expenses of the Canadian National under this heading exceeded those of the Canadian Pacific by 40.9 per cent, while the total train mileage of the Canadian National was only 24.1 per cent greater than that of the Canadian Pacific.

In the following pages an analysis is made of each of the four rolling stock repair accounts, and an inclusive cost for each class of equipment is built up by adding a pro rata proportion of the overhead expenses which were shown in Table 11.

COST OF REPAIRS TO LOCOMOTIVES

Table 12 gives the total locomotive mileage of the two systems for the nine-year period, the total cost of repairs, including overhead, and the cost per locomotive mile.

TABLE 12

MAINTENANCE COST OF LOCOMOTIVES 1923-31

	Canadian National	*Canadian Pacific*	*Excess C.N. over C.P. Per cent*
Locomotive mileage	705,198,295	551,941,680	27.8
Locomotive repairs	$152,521,000	$88,243,000	72.8
Overhead	15,985,000	7,476,000	113.8
Inclusive cost	$168,506,000	$95,719,000	76.0
Cost per locomotive mile:			
Repairs	21.63c	15.99c	35.3
Overhead	2.27c	1.35c	68.1
Inclusive cost	23.90c	17.34c	37.8

It will be noted that, while the Canadian National had an excess of 27.8 per cent in total locomotive mileage, its cost of locomotive repairs, excluding overhead, exceeded Canadian Pacific costs by 72.8 per cent, and, including overhead, by 76.0 per cent. On a unit cost basis, taking the locomotive mile as the unit, the cost of repairs, excluding overhead, of the Canadian National exceeded that of the Canadian Pacific by 35.3 per cent and including overhead, by 37.8 per cent.

In analyzing the foregoing figures, due consideration should be given to Table 13 which shows the number of locomotives owned and their comparative tractive power at the beginning and end of the period.

TABLE 13

NUMBER OF LOCOMOTIVES AND THEIR COMPARATIVE TRACTIVE POWER ON DEC. 31ST, 1922 AND 1931

	Number of Locomotives		*Average Tractive Power (lbs.)*		*Aggregate Tractive Power (thousand lbs.)*	
	1922	1931	1922	1931	1922	1931
Canadian National	3,265	3,097	32,800	39,200	107,092	121,402
Canadian Pacific	2,345	2,130	31,349	35,338	73,513	75,269
Per cent excess C.N. over C.P.	39.2	45.4	4.6	10.9	45.7	61.3

On December 31, 1931, the Canadian National had 45.4 per cent more locomotives than the Canadian Pacific and an excess in aggregate tractive power of 61.3 per cent, with the result that each locomotive of the Canadian National had on the average 10.9 per cent more tractive power than each locomotive of the Canadian Pacific. This latter fact should be borne in mind in comparing the locomotive repair costs of the roads on a locomotive mile basis. Yet even when allowance is made for the greater average tractive power of Canadian National locomotives, the unit cost of maintaining locomotives was greater on the Canadian National than on the Canadian Pacific.

The excess of 37.8 per cent in the inclusive repair costs per locomotive mile of the Canadian National, shown in Table 12, is explained in part by the disparity in the number of locomotives owned by the two railways. As is shown in Chapter IX, the Canadian National spent over twice as much money on new locomotives during the nine-year period as the Canadian Pacific, and the effect of this larger expenditure for heavier power equipment in increasing the disparity in aggregate tractive power on the two railways is shown in Table 13. Yet it is important to note that there was little or no change in the comparative traffic conditions of the two railways or in their comparative locomotive mileages to have warranted the increased disparity in the number of locomotives. Moreover, it is an unquestioned fact that locomotives will

cost more to maintain per locomotive mile when they are idle part of the time, than when they are fully utilized.

COST OF REPAIRS TO FREIGHT CARS

Table 14 gives the total freight car mileage of the two systems during the nine-year period, the total cost of repairs, including overhead, together with the resulting costs per freight car mile.

TABLE 14

MAINTENANCE COST OF FREIGHT CARS 1923-31

	Canadian National	*Canadian Pacific*	*Excess C.N. over C.P. Per cent*
Freight car mileage	11,488,229,000	8,144,367,000	41.1
Freight train cars repairs	$ 146,522,000	$104,573,000	40.1
Overhead	15,294,000	8,841,000	73.0
Inclusive cost	$161,816,000	$113,414,000	42.7
Adjustment account repair factor in hire of freight cars	Dr. 12,424,000	Cr. 4,970,000	......
Adjusted inclusive cost	$174,240,000	$108,444,000	60.7
Cost per freight car mile:			
Repairs	1.28c	1.28c	......
Overhead	.13c	.11c	18.2
Inclusive	1.41c	1.39c	1.4
Adjusted inclusive cost	1.52c	1.33c	14.3

It will be noted that the Canadian National had an excess of 41.1 per cent in total freight car mileage during the period, its inclusive cost of maintenance was 42.7 per cent higher, and its cost per freight car mile was 1.4 per cent more than that of the Canadian Pacific. The table shows that an adjustment was made to reflect differences between the two railways with respect to hire of freight cars. After adjustment, the inclusive cost for the Canadian National shows an excess of 60.7 per cent, with the result that the cost per car mile was 14.3 per cent higher than that of the Canadian Pacific. The explanation of the adjustment follows.

With respect to hire of freight cars, the Canadian Pacific is a creditor road, and its cars make more mileage on other roads than foreign cars make on the Canadian Pacific. The reverse is the case with the Canadian National. As a result, the Canadian Pacific costs include the maintenance expense incurred for mileage made on other roads for which it receives credit through the Per Diem accounts, whereas the Canadian National costs do not include maintenance expense incurred for certain mileage which is paid for through the Per Diem accounts. A study of the Interstate Commerce Commission Docket 17801 determined that 42.8 cents of the dollar a day rental on freight cars was applicable to cost of repairs. During the nine-year period used by the Royal Commission, the Canadian National had heavy debit balances for Hire of Freight Cars each year, while the Canadian Pacific had, in the aggregate, a large credit balance. Using the Interstate Commerce Commission formula, the amounts affecting maintenance of freight cars because of this factor are:—

	Hire of Freight Cars	*42.8% Applicable to Car Repairs*
Canadian National Rys. Dr.	$29,029,000	$12,424,000
Canadian Pacific Rly. Cr.	11,613,000	4,970,000

Consequently in Table 14 the sum of $12,424,000 was added to the maintenance costs of the Canadian National, and $4,970,000 was deducted from the maintenance costs of the Canadian Pacific giving the results as indicated.[9]

COST OF REPAIRS TO PASSENGER CARS

Table 15 gives the total passenger car mileage of the two systems during the nine-year period, the total cost of repairs including overhead and the resulting costs per car mile.

[9]If the adjustment for hire of freight cars is made in car mileage instead of in the cost of repairs, the excess repair cost per freight car mile of the Canadian National over the Canadian Pacific was 23.6 per cent; the repair cost per freight car mile, including proportion of overhead and after adjustment for car hire for the period 1923-31, was 1.62 cents for the Canadian National and 1.31 cents for the Canadian Pacific, which may be compared with the figures in Table 14. The calculations from which this comparison was derived were made on an identical basis by the statistical departments of the two railways at the request of the writer.

TABLE 15

MAINTENANCE COST OF PASSENGER CARS 1923-31

	Canadian National	*Canadian Pacific*	*Excess C.N. over C.P. Per cent*
Passenger Train Car Mileage:			
Sleeping, parlor, and dining	463,872,000	520,812,000	—10.9
All other	1,133,468,000	870,552,000	30.2
Total	1,597,340,000	1,391,364,000	14.8
Maintenance Costs			
Passenger train car repairs	$58,259,000	$47,272,000	23.2
Overhead	6,111,000	3,992,000	53.1
Inclusive cost	$64,370,000	$51,264,000	25.6
Cost per Passenger Train Car mile:			
Repairs	3.65c	3.40c	7.4
Overhead	.38c	.29c	31.0
Inclusive cost	4.03c	3.69c	9.2

It will be observed the Canadian National costs were greater per car mile than those of the Canadian Pacific, although the disparity was not so great as with other classes of equipment. The total repair costs of the Canadian National, excluding overhead, were 23.2 per cent higher than those of the Canadian Pacific, and including overhead 25.6 per cent higher, as compared with an excess in car mileage of 14.8 per cent. Consequently, the repair cost per car mile on the Canadian National was 7.4 per cent in excess of that of the Canadian Pacific excluding overhead and 9.2 per cent in excess including overhead.

In this connection the effect should be pointed out of the operation by the Canadian National on some of its lines of Pullman cars the repairs to which are borne by the Pullman Company although the mileages of these cars are included in the divisor in arriving at the foregoing averages. This results in a slightly smaller unit cost being shown than was actually the case. The Canadian Pacific, on the other hand, operates and owns all its sleeping and parlor cars. Another factor which benefited the Canadian National, in the comparison, was that a greater proportion of its car mileage consisted

of head-end cars and coaches. Repair costs for sleeping, parlor, and dining cars are much heavier per car mile than for other kinds of cars.

CONCLUSIONS CONCERNING COMPARATIVE COSTS OF MAINTAINING EQUIPMENT

The foregoing analysis, indicating a consistently higher unit cost on the Canadian National, would not be complete without giving consideration to the following statement made to the recent Royal Commission by an officer of the Canadian National System in endeavoring to reconcile the disparity in costs of the Canadian National and the Canadian Pacific for the maintenance of equipment. He said:

"The Canadian National problem respecting maintenance of equipment is more complex than that of the Canadian Pacific. The Canadian National inherited from predecessor companies a multiplicity of types of locomotives and freight and passenger car equipment which has prevented many economies, due to their lack of standardization. Further, the Canadian National is under the necessity of maintaining locomotive and car shops originally designed to serve independent companies. In the interest of economy many of these shops should be closed, but as a matter of general policy they have been kept in operation and the Canadian National Railways is denied the benefit which would result from a centralization of shops. The Canadian Pacific Railway, which developed progressively, has been fortunate in a policy of standardization and centralization of shop work. Some idea of the comparative complexity of the Canadian National maintenance of equipment problem may be had from consideration of the following statement of types of equipment and a further statement of car and locomotive shops with the average number of employees therein:"

"Notwithstanding these disabilities and in spite of the policy of picking up deferred maintenance . . . the Canadian National maintenance of equipment expenses per traffic unit compare fairly well with these of Class I Roads of the United States." As presented to the Commission this is shown in Table 18.

TABLE 16

Comparative Statement of Canadian National and Canadian Pacific Classes of Equipment

	Number of Classes	
	Canadian National Railway	*Canadian Pacific Railway*
Locomotives	235	75
Freight cars	429	199
Passenger cars	250	102
Unit cars	17	3
Totals	931	379

TABLE 17

Comparative Statement of Canadian National and Candian Pacific Locomotive and Car Shops and Normal Number of Employees

Canadian National		*Employees*	*Canadian Pacific*		*Employees*
Moncton	L & C	1,294	McAdam	L & C	171
St. Malo	L & C	475	Montreal	L & C	6,028
Montreal	L & C	2,617	Carleton Place	L	72
Leaside	C	336	West Toronto	L & C	433
London	C	710	North Bay	L & C	243
Stratford	L	1,031	Winnipeg	L & C	2,102
Fort Rouge	L & C	1,998	Calgary	L & C	1,149
Transcona	L & C	2,139	Vancouver	L & C	244
Edmonton	L & C	404	Lyndonville	L & C	109
Battle Creek	L	429			
Port Huron	C	443			
St. Albans	L & C	450			
	Total	12,326		Total	10,551

TABLE 18

Maintenance of Equipment Expense Per 1,000 Traffic Units 1923-30*

Year	*Canadian National*	*Class I U.S. Railroads*	*Canadian Pacific*
1923	$2.063	$2.560	$1.717
1924	2,088	2.352	1.876
1925	2,007	2,247	1,806
1926	1,941	2,165	1.875
1927	1.903	2.128	1.924
1928	1,803	2.052	1,791
1929	2.097	2.063	1.950
1930	2.193	2,030	1.797
Average	2.113	2.199	1.842

*The traffic unit used was a combination of passenger miles and ton miles of all freight, with a weight of three given to passenger miles and one to ton miles.

After analysis and discussion with railway officers, the writer offers the following observations in regard to the foregoing submission:

Table 16, in view of the locomotive inventories of the two railways, indicates an average of 14 engines per class for the Canadian National as compared with 27 for the Canadian Pacific. It seems apparent, therefore, that relatively small differences between engines must have governed the indicated classification. Moreover, locomotives, although of different types and classes, have a number of standardized parts. While the necessity of carrying extra replacement parts for odd types may have required a larger inventory of materials, it should not have resulted in appreciably increased charges to operating expenses. On analysis it appears that the classification in Table 16 overstated the actual locomotive repair problem of the Canadian National.

The comparison of freight and passenger cars is even less convincing than that of locomotives. The degree of standardization of freight car parts is one of the marvels of railroading on this continent, and has been achieved through the activities of railway associations which have fostered rules of standard practice. Therefore, the 429 classes of freight cars found by the Canadian National in their inventory give an impression of difficulties which is not well founded. Likewise the wheels and substructure of passenger cars are standardized, though the superstructure is of many varieties. In view of the larger number of sleeping and dining cars owned by the Canadian Pacific, the claim, indicated by the figures in Table 16, that the Canadian National has two and one-half times the number of classes of passenger cars in the Canadian Pacific inventory would seem to give an incorrect impression. Interior repairs for these types of cars are much heavier than for head-end cars, which are owned in much larger numbers by the Canadian National. Repairs to the superstructure of both freight and passenger cars are largely of a special or particularized nature, handled by carpenters, steamfitters, plumbers and upholsterers, and are not subject to much standardization.

Table 17 shows that the Canadian Pacific had attained a

degree of centralization of repairs at its Montreal shops which has no counterpart on the Canadian National. Otherwise, the table itself does not show evidence of weakness in the shop situation of the Canadian National, apart from the fact that it has two separate shops at Winnipeg. The impression given by the table is that elsewhere the Canadian National was in a well balanced position, with no back shops employing less than 300 men, while five out of nine shops of the Canadian Pacific employed less than this number.

Table 18 aimed to show that, while comparison with the Canadian Pacific was unfavorable, relative unit costs compared very well with those of Class I railroads of the United States. Yet the different conditions existing on United States roads from those met with on Canadian railways have an important bearing on unit costs. Railroads in the United States have generally much greater traffic density, more complicated terminal situations, and greater interchange of cars between railways, all of which tend to increase the cost of equipment upkeep. Consequently the comparison would only be of assistance in supporting Canadian National costs if the table disclosed averages substantially lower than for United States Class I railroads. Moreover, American railroads provide, in accordance with regulations of the Interstate Commerce Commission, depreciation charges for all equipment. The Canadian Pacific, as will be seen shortly, charged to its operating expenses the equivalent of full depreciation, whereas the Canadian National did not provide adequately for depreciation. Had it done so, its unit costs would have been still higher.

One may conclude, therefore, that the higher unit costs on the Canadian National cannot be justified solely on the grounds of various physical handicaps, and that other causes must be sought. In the final analysis, the conclusion seems justified that the reason for the greater unit costs of maintaining equipment was simply that there was not the same degree of economy in the operation of the government system as there was in the operation of the Canadian Pacific.

In conclusion it should be noted that the more favorable performance of the Canadian Pacific is further emphasized

when consideration is given to the difference in policy which prevailed during the period in respect to renewals, retirements and depreciation. Under any system of railway accounting, provision should be made through operating accounts for loss of service life of items of property with a limited life. Three systems of equipment accounting were used during the period under review:

(1) Depreciation accounting prescribed by the Interstate Commerce Commission for railroads in the United States.

(2) Retirement accounting used by the Canadian National on its lines in Canada.

(3) Replacement accounting used by the Canadian Pacific until 1930.

The first method aims to provide currently for loss of service life of equipment by depreciation charges to operating expenses, represented on the other side of the accounts by credits to a depreciation reserve account. As equipment is retired, the appropriate asset account is diminished by the original cost of the retired unit, and the depreciation reserve account is diminished by the same amount less the salvage value of the unit.

The retirement method used by the Canadian National on its lines in Canada failed to provide adequate charges to operating expenses equivalent to a fair depreciation allowance. As units of equipment were retired the original cost of the unit less salvage was charged to operating expenses and an equal amount was written out of the investment accounts.

Replacement accounting was the historical policy of the Canadian Pacific up to 1930. The annual report of the Company for 1931 explained the replacement system as follows:

"Prior to 1930 it was the Company's practice when equipment was retired to charge to expenses the current cost of the new unit without regard to any increase of capacity over that of the unit retired."

The difference between the retirement and replacement methods as outlined can best be enforced by an illustration. Assume that a 30-ton box car, which today costs $700, was pur-

chased thirty years ago at a cost of $500 and that it is replaced with a 40-ton car at a cost of $950; under the retirement principle of accounting, operating expenses would be charged with $500 if the car were retired, whereas, under the replacement-in-kind policy operating expenses would be charged with $700. However, since the practice of the Canadian Pacific was to charge the current cost of new units to expenses without regard to an increase in capacity over that of the retired unit, it would have charged $950 to its operating expenses.

It is apparent, therefore, that when there has been a rise in prices between the time when property was acquired and when it is retired and replaced, a replacement-in-kind policy of accounting will provide more liberally for the depreciation element than will a retirement accounting policy. The replacement-in-kind policy has the effect of replacing each unit retired with an equivalent unit out of current earnings, whereas the retirement accounting results in capitalizing the excess cost of a new unit over the original cost during a period of rising prices with relief to operating expenses, while during a period of falling prices capital account would be reduced and operating expenses burdened with the retirement of units purchased at high prices. Under either plan the railways are free to control to some extent the amount of the charges to operating expenses by adopting a liberal or conservative attitude with regard to units retired. Under depreciation accounting the annual charge is equalized irrespective of the number of units retired, although to be sure there is a theoretical factor in the appropriate rate of depreciation to use, in so far as the length of service life of the units of property has to be computed on the basis of average experience.

The difference between the policies of the two companies is reflected in the relative charges for renewals, retirements and depreciation for the nine years. Although the Canadian National owned about 40 per cent more equipment than the Canadian Pacific, its retirement, etc. expenses were only $35,494,000 compared with $48,388,000 for the Canadian Pacific. Computations made for the recent Royal Commission by a consulting railway accountant showed that the amounts

charged by the Canadian Pacific for equipment retirements and renewals for the nine years were approximately $4,000,000 more than depreciation charges at a rate of 3 per cent would have been, whereas the amounts charged by the Canadian National were approximately $46,000,000 less than depreciation on a 3 per cent basis.[10]

In the hearings before the Royal Commission, the Canadian National denied the validity of the interpretation that it had inadequately accounted for the depreciation factor during the period. The principle argument was that its extensive program of rebuilding and repairing equipment during the period had materially improved the condition of the equipment and that in so far as the net result was concerned "it made no difference in what form the expenses were classified, whether as repairs, renewals, retirements or depreciation." While there is no doubt that the rehabilitation program of the Canadian National increased its repair expense and improved the condition of its equipment, it is still difficult to avoid the fact that its retirement charges for the period, in effect, assumed an average length of life for its equipment of about 75 years as contrasted with 30 years which is assumed in a 3 per cent depreciation rate (with a 10 per cent allowance for salvage value).

As shown previously, expenses of the Canadian National for maintenance of equipment for the period 1923-1931 were in excess of those of the Canadian Pacific by 40.9 per cent. After allowance was made for the effect of differences respecting hire of freight cars and provision for retirements and depreciation on a 3 per cent basis, the excess was increased to 63.7 per cent. The following summary tabulates these adjustments:

		Canadian National		*Canadian Pacific*	*Excess C.N. over C.P. per cent*
Expense for Maintenance of Equipment as per accounts		$449,368,000		$319,011,000	40.9
Adjustments:					
Hire of Freight Cars	Dr.	12,424,000	Cr.	4,970,000	
Retirements and Depreciation to 3% basis	Dr.	46,355,000	Cr.	3,719,000	
		$508,147,000		$310,322,000	63.7
Ratio to Operating Revenues		21.7%		16.5%	

[10] *Report for the Royal Commission on Railways and Transportation*, prepared by Parker, George H., June 1932, Vol. 1, p. 75.

TRANSPORTATION EXPENSES

The rules of the Interstate Commerce Commission provide for the grouping of railway expenses in five categories, of which transportation expense is the largest. It amounts to nearly 50 per cent of total operating expenses and comprises the cost of actually moving the traffic over the railway. The principal items of transportation expense include the cost of operating the trains, the freight yards and the freight and passenger stations.

The total transportation expenses of the Canadian National for the nine years 1923 to 1931 were $1,023,650,000 as compared with $745,350,000 for the Canadian Pacific, or an excess of 37.3 per cent. The principal items of transportation expense are shown in Table 19.

TABLE 19

TRANSPORTATION EXPENSES 1923-31

	Canadian National	*Canadian Pacific*	*Excess C.N. over C.P. Per cent*
Superintendence	$ 34,753,000	$ 21,269,000	63.4
Despatching trains	13,212,000	10,950,000	20.7
Station service	161,388,000	114,021,000	41.5
Yard service	170,291,000	95,156,000	79.0
Train service	487,749,000	371,938,000	31.1
Telephone and telegraph	33,005 000	30,561,000	
Express	56,655,000	50,126,000	
Other—includes floating equipment of both companies	66,597,000	51,329,000	29.7
Total	$1,023,650,000	$745,350,000	37.3
Total (excluding telephone and telegraph and express)	933,990,000	664,663.000	40.5

The analysis of the transportation expenses of the two railways which is given in the following pages is divided into three parts. In the first, there is a description of the factors which have permitted a reduction in the transportation ratio of both companies, separate attention being given to the freight and passenger service. In the second section, there is a discussion of the factors which affected the freight service of the two systems differently, and in the third section, there is an an-

alysis of the principal items of transportation cost, i.e., train service, yard cost and station cost.

THE TRANSPORTATION RATIO

The transportation ratio, which is the ratio of transportation expenses to gross operating revenues, is a significant index of operating efficiency when properly supplemented by other indices. As an index of efficiency it is probably the most important and most reliable, although since it is a composite result, it reflects not only operating efficiency, but also many other factors, such as changes in rates, wages, fuel prices, the amount of traffic, and the average haul, which are more or less outside the control of management. Table 20 shows the transportation ratios of the Canadian National and the Canadian Pacific for the years 1923 to 1933.

TABLE 20

TRANSPORTATION RATIOS*

(Ratio of transportation expenses to gross revenues)

Year	*Canadian National*	*Canadian Pacific*	*Excess C.N. over C.P. Points*
1923	47.73	41.91	5.82
1924	47.01	41.25	5.76
1925	43.88	39.72	4.16
1926	40.84	37.76	3.08
1927	42.15	38.66	3.49
1928	40.48	36.33	4.15
1929	41.72	37.73	3.99
1930	44.73	40.79	3.94
1931	47.81	43.83	3.98
Average 1923-31	43.79	39.52	4.27
1932	48.44	43.68	4.76
1933	46.15	40.95	5.20

*Figures for both railways include cost of operating floating equipment, such as car ferries, etc.

The average transportation ratio of the Canadian National for the nine years, 1923 to 1931, was 4.27 points higher than that of the Canadian Pacific, but the margin of excess was cut down from 5.82 points in 1923 to 3.08 in 1926, and then rose to 3.98 points in 1931. The difference widened again in 1932

and 1933, and was 4.76 and 5.20 points respectively. If the Canadian National had been less ambitious in increasing its passenger train service in the years following 1923, the improvement in its transportation ratio would have been still greater.

Various factors had their bearing on the improvement in the transportation ratio of both railways prior to the depression. Among them were the decreasing cost of locomotive fuel and its more efficient use. Table 21 gives the average cost per ton of coal to Canadian railways from 1923 to 1933.

TABLE 21

AVERAGE COST PER TON OF COAL TO CANADIAN RAILWAYS 1923-33*

1923	$5.88	1929	$4.49
1924	5.51	1930	4.43
1925	5.16	1931	4.32
1926	4.77	1932	4.21
1927	4.73	1933	4.01
1928	4.59		

*Dominion Bureau of Statistics, *Statistics of Steam Railways of Canada.*

Along with lower prices came greater efficiency in its use, as is shown in Table 22.

TABLE 22

FUEL CONSUMPTION, POUNDS PER 1,000 GROSS TON MILES OF FREIGHT (EXCLUDING LOCOMOTIVE AND TENDER)

	Canadian National	*Canadian Pacific*
1923	146	130
1924	140	129
1925	131	120
1926	129	121
1927	128	120
1928	123	116
1929	125	118
1930	123	113
1931	117	114
1932	118	114
1933	118	112

On the Canadian National the reduction in fuel consumption per 1,000 gross ton miles of freight was relatively greater than on the Canadian Pacific; the decrease from 1923 amounted to 19.9 per cent in 1931 as compared with a decrease of 12.3 per cent on the Canadian Pacific. Since 1931, however, the margin between the two companies has not changed materially. The greater improvement on the National during the period can probably be attributed to the larger expenditures made for new and improved motive power. During the nine years 1923 to 1931 the gross expenditures for new locomotives and betterments to existing power totalled $34,480,066 for the Canadian National as compared with $14,592,226 for the Canadian Pacific. Thus in 1923, whereas the locomotives of the Canadian National exceeded the average tractive power of locomotives of the Canadian Pacific by 4.6 per cent, in 1931 the excess was widened to 10.9 per cent. The saving in fuel consumption secured by additional capital expenditures, therefore should not be construed as net saving, as an allowance must be made for interest charges on new capital invested.

The combination of a declining price and increasing efficiency in the use of coal effected a materially lower fuel cost per 1,000 gross ton miles of freight. Thus the fuel expense per 1,000 gross ton miles on the Canadian National declined from 44.5 cents in 1923 to 27.5 cents in 1930, a decline of 38 per cent. This may be compared with the performance on the Canadian Pacific, which showed a decline from 42.2 cents in 1923 to 27.3 cents in 1930, or a decrease of 35 per cent.

Other indices of operating efficiency in the transportation department are the average train load, the average car load and the speed of freight service. Table 23 compares the operations of the two railways with respect to average train load and average car load.

Despite the lower freight traffic density of the Canadian National it suffered no disadvantage in so far as train loadings were concerned, although its average car load was consistently lower than that of the Canadian Pacific.

In keeping with similiar progress in the United States, Canadian railways increased the speed of freight train service materially between 1923 and 1933. For example, the

average speed of freight train service on the Canadian National increased from 11.8 miles per hour in 1923 to 15.1 miles per hour in 1931, which was slightly higher than the average on Class I railroads of the United States.

In so far as freight train operations of the two Canadian railways were concerned, substantial progress is indicated by every index of transportation performance, for train loading increased, consumption of fuel decreased and train speed increased.

TABLE 23

AVERAGE FREIGHT TRAIN LOAD AND AVERAGE FREIGHT CAR LOAD, REVENUE AND NON-REVENUE FREIGHT, 1923-33

	Average tons per train		*Average tons per car*	
	Canadian National	*Canadian Pacific*	*Canadian National*	*Canadian Pacific*
1923	567	600	25.6	28.2
1924	576	581	24.9	27.2
1925	597	583	24.9	26.5
1926	606	583	24.7	26.6
1927	601	586	24.8	27.2
1928	644	625	25.3	27.8
1929	614	605	24.0	26.3
1930	600	569	23.9	25.8
1931	593	575	24.2	26.4
Average 1923-31	600	591	24.7	26.9
1932	573	591	25.1	27.6
1933	577	613	24.4	27.0

COMPARATIVE ANALYSIS OF PASSENGER SERVICE

Table 24 gives a comparison of the passenger traffic density of the two railways.

TABLE 24

PASSENGERS CARRIED ONE MILE PER MILE OF LINE 1923-33

Year	*Canadian National*	*Index Number* 1923=100	*Canadian Pacific*	*Index Number* 1923=100
1923	66,350	100	95,840	100
1924	62,761	95	86,369	90
1925	62,908	95	86,152	90
1926	65,148	98	85,472	89
1927	66,827	101	85,147	89
1928	67,974	102	87,069	91
1929	61,920	93	78,103	81
1930	51,322	77	62,527	65
1931	36,428	55	44,356	46
Average 1923-31	59,919	90	78,447	82
1932	28,862	43	38,181	40
1933	28,007	42	36,040	38

Excess Canadian Pacific over Canadian National (nine-year average) =30.9%

In 1923 the passenger traffic density of the Canadian Pacific was 44.4 per cent more than that of the Canadian National; the average density on the Canadian Pacific for the nine years 1923 to 1931 was 30.9 per cent more than that of the Canadian National, and in 1933 the excess was 28.7 per cent. The lowering of the margin of difference during the period was partly the result of increased rivalry for competitive traffic (which proved very costly to both railways) although a part of the decrease was caused by a relatively greater increase of new railway mileage on the Canadian Pacific.

The trend of passenger train mileage and passenger train earnings per passenger train mile for the two systems is shown in Table 25.

TABLE 25

PASSENGER TRAIN MILEAGE AND PASSENGER TRAIN EARNINGS PER PASSENGER TRAIN MILE, 1922-33

	Passenger Train Mileage				*Passenger Train Earnings per Train Mile***			
	*Canadian National**		*Canadian Pacific*		*Canadian National*		*Canadian Pacific*	
Year	*Amount* (000)	*Index* 1922 : 100	*Amount* (000)	*Index* 1922 : 100	*Amount*	*Index* 1922 : 100	*Amount*	*Index* 1922 : 100
1922	22,829	100	20,387	100	$2.43	100	$2.85	100
1923	24,093	106	20,806	102	2.48	102	2.77	97
1924	24,567	108	20,925	103	2.37	98	2.59	91
1925	24,601	108	21,025	103	2.30	95	2.53	89
1926	24,870	109	21,088	103	2.35	97	2.60	91
1927	25,951	114	21,509	106	2.30	95	2.61	92
1928	26,920	118	21,990	108	2.31	95	2.62	92
1929	27,115	119	21,975	108	2.22	91	2.57	90
1930	27,639	121	21,836	107	1.93	79	2.18	76
1931	24,617	108	19,702	97	1.64	67	1.83	64
1932	19,890	87	17,998	88	1.59	65	1.67	59
1933	18,536	81	16,220	80	1.50	62	1.64	58

*Central Vermont included from January 1st, 1930. It had between 800,000 and 1,000,000 passenger train miles.

**Passenger train earnings include passenger, mail, express (gross), parlor and sleeping car, excess baggage and milk and other passenger train revenues.

There was a steady increase in total passenger train mileage on the Canadian National from 1922 to 1929 despite the fact that passenger train earnings per train mile were declining. The increase in train mileage was 19 per cent as compared with 8 per cent for the Canadian Pacific, which indicates that

the Canadian National was the aggressor in the competitive struggle for traffic.[11] Throughout the period the Canadian Pacific had higher passenger train earnings per train mile than the Canadian National, but the difference was not great in 1933. In the years from 1929 to 1933 the passenger traffic density of both railways was declining very rapidly, and despite great reductions in passenger train service, there was a marked decline in earnings per train mile, even more so on the Canadian Pacific than on the Canadian National.[12] This illustrates the fact that with declining traffic density it is not possible to reduce train mileage to a corresponding degree.

The Canadian National has followed the practice of making a division of operating revenues and expenses as between freight and passenger services, using the formula developed by the Interstate Commerce Commission. While this involves an allocation of certain common freight and passenger expenses, the results will serve in a rough way to indicate the extreme unprofitableness of passenger service on the Canadian National.[13] The calculations showed that in the passenger service there was a deficit after operating expenses (but not including interest on passenger service equipment and facilities) amounting to $7,000,000 in 1923. In 1928 the operating deficit was $8,750,000; in 1929 it was $13,440,000, and in 1930, $19,077,000. Under these conditions it is economically wasteful to attempt to maintain competitive passenger train service in Canada. The competitive passenger traffic is not sufficient to be divided between two railways without loss to both, arising from the duplication of service and equipment.

[11]In keeping with its higher passenger traffic density the Canadian Pacific had more passenger train miles per mile of line than the Canadian National, although the margin of difference decreased during the period. The comparative figures were as follows:

	1922	1929	1933
Canadian Pacific	1399	1366	952
Canadian National	1049	1198	781

[12]In this connection the luxury nature of certain Canadian Pacific traffic must be kept in mind. A major feature of the Canadian Pacific passenger traffic has been its transcontinental tourist traffic and overseas traffic in conjunction with its ocean steamships on the Atlantic and Pacific. This traffic has been particularly curtailed due to the depression.

[13]Similar data for the Canadian Pacific have not been published but there is every indication that its passenger service was also increasingly unremunerative, although to a somewhat less extent than in the case of the Canadian National.

SUMMARY OF ANALYSIS OF PASSENGER TRAIN SERVICE

Passenger train service on Canadian railways was becoming increasingly unprofitable during the period. This was caused partly by the competition of the passenger automobile and the bus, but an important contributing factor was the aggressive rivalry between the two railways for competitive traffic. In view of the steady decline in passenger train earnings, the amount and character of the passenger train service, particularly on competitive routes, was clearly excessive. From the standpoint of the ratio of passenger train costs to passenger train earnings, the Canadian National was at a greater disadvantage than the Canadian Pacific, because its earnings per train mile were consistently lower than those of the Canadian Pacific. This was an important factor in the higher transportation ratio of the Canadian National, although it is difficult to avoid the observation that its disadvantage was increased by its policy of expanding its service in the attempt to secure a greater share of the transcontinental passenger traffic which had been largely the exclusive possession of the Canadian Pacific for a great many years.

DIFFERENT OPERATING CHARACTERISTICS OF THE TWO SYSTEMS

In making a comparative analysis of transportation expenses of the two railways it is necessary to bear in mind certain differences in their operating characteristics. The greater average tractive power of locomotives on the Canadian National is an advantage from the standpoint of operating expenses because larger locomotives permit the haulage of heavier trains, giving a lower wage and fuel cost per ton mile. The Canadian National also has an advantage of lower gradients. In particular the Grand Trunk Pacific and the National Transcontinental, comprising nearly 5,000 miles of line, were constructed to a standard much beyond the needs of existing traffic, with extremely low gradients and moderate curvature. However, while it is true that the Canadian National showed a steady improvement with respect to heavier train loading, its average train

load was but slightly heavier than that of the Canadian Pacific for the period as a whole. This would indicate that since the Canadian National had the advantages of greater tractive powered locomotives and lower gradients, its trains were not loaded to maximum tonnage to the same degree as Canadian Pacific trains.

Important also from the standpoint of cost relationships was the comparative situation with respect to the tonnage and character of the freight traffic, the average haul of freight traffic, and freight and passenger traffic density. In each of these cases the Canadian Pacific had an advantage which partly explained its lower unit costs. These factors are of sufficient importance to warrant extended treatment before continuing the analysis of transportation costs.

The freight traffic characteristics of the two roads present certain differences which largely explain the difference in average revenue per ton mile and average haul. Table 26 gives the distribution of freight tonnage by principal commodities for the years 1923 to 1931 inclusive. These figures include traffic received from connections.

TABLE 26

DISTRIBUTION BY COMMODITY GROUPS OF REVENUE FREIGHT CARRIED 1923-31

	Canadian National		*Canadian Pacific*	
	Tons Carried	*Per Cent of Total*	*Tons Carried*	*Per Cent of Total*
Wheat	51,571,577	9.98	55,035,028	17.52
Other agricultural products	52,740,222	10.20	38,691,012	12.31
Total agricultural products	104,311,799	20.18	93,726,040	29.83
Animal products	13,027,276	2.52	7,272,146	2.31
Mineral products	176,436,356	34.14	89,482,176	28.48
Forest products	83,130,033	16.09	47,634,156	15.16
Mfgs. and Misc.	139,880,149	27.07	76,125,339	24.22
Total tonnage	516,785,613	100.00	314,239,857	100.00
Average annual tonnage	57,420,624		34,915,540	

Excess Canadian National over Canadian Pacific 64.46%

It should be noted that the Canadian National carried 64.5 per cent more tonnage than the Canadian Pacific although the

number of ton miles of revenue freight on the Canadian National was only 31.3 per cent greater than that of the Canadian Pacific. Thus the Canadian National carried more tons but for a shorter average distance. This is reflected in the freight characteristics of the two systems. The Canadian National carried less wheat than the Canadian Pacific; in fact 17.52 per cent of the tonnage carried by the Canadian Pacific was wheat as compared with 9.98 per cent for the Canadian National. On the other hand, the Canadian National carried a relatively larger proportion of mineral products. Both minerals and wheat lend themselves to heavy train loading, but whereas the average haul of minerals does not exceed 250 miles, wheat in Canada has an average haul of about 800 miles. On the other hand, it should be noted that grain is moved under very low statutory rates in Canada. Attention should also be directed to the greater proportion of manufactures and miscellaneous tonnage on the Canadian National, which was important both from the standpoint of average revenue per ton mile and the cost of performing the service. The effect of these traffic characteristics on the average haul of freight traffic on the two railways is shown in Table 27.

TABLE 27

AVERAGE HAUL OF REVENUE FREIGHT
(MILES)

Year	*Canadian National*	*Canadian Pacific*
1923	325	442
1924	323	415
1925	328	405
1926	316	395
1927	314	403
1928	327	429
1929	297	365
1930	318	367
1931	350	397
Average 1923-31	321	402
1932	373	445
1933	368	425

The average haul of revenue freight on the Canadian National was 321 miles in the nine-year period compared with

402 miles on the Canadian Pacific. As already stated, this explains why the ton mileage of the Canadian National exceeded that of the Canadian Pacific by only 31.3 per cent, although the Canadian National carried 64.5 per cent more tons of freight than the Canadian Pacific. This fact must be borne in mind in comparing the transportation costs of the two railways, since terminal costs are the same whether the freight is hauled a long or a short distance. Thus the average yard costs of the Canadian National were .92 mills per ton mile of all freight as compared with .66 mills for the Canadian Pacific, which was an excess over Canadian Pacific costs of 39 per cent.

FREIGHT TRAFFIC DENSITY

The comparative freight traffic density of the two railways is shown in Table 28.

TABLE 28

TON MILES OF ALL FREIGHT PER MILE OF LINE, 1923-33

Year	*Canadian National*	*Index Number* 1923=100	*Canadian Pacific*	*Index Number* 1923=100
1923	960,764	100	1,136,486	100
1924	862,492	90	970,848	85
1925	903,226	94	1,000,753	88
1926	968,662	101	1,057,955	93
1927	985,992	103	1,085,832	96
1928	1,130,086	118	1,308,469	115
1929	974,052	101	1,068,667	94
1930	797,206	83	859,648	76
1931	677,760	71	729,023	64
Average 1923-31	915,290	95	1,020,947	90
1932	588,775	61	663,906	58
1933	540,511	56	612,617	54

Excess Canadian Pacific over Canadian National (nine-year average)=11.5%

In 1923 the average density of freight traffic on the Canadian Pacific was 18.3 per cent more than that on the Canadian National. During the period the Canadian Pacific added relatively more new mileage to its system than the Canadian National did, with a result that the difference in average densities was somewhat less for the period as a whole than it was in 1923. In 1933 the excess density on the Canadian Pacific over the Canadian National was 13.3 per cent.

SUMMARY OF DIFFERENCES AFFECTING FREIGHT TRANSPORTATION COSTS

The most significant difference between the two railways was the disparity in the average haul of freight which resulted from the fact that while the Canadian National carried 64.5 per cent more freight tonnage than the Canadian Pacific, its ton mileage exceeded that of the Canadian Pacific by only 31.3 per cent. This would have a particular bearing on yard costs. Attention was also directed to the lower gradients of the Canadian National and the greater average tractive power of its locomotives. It was apparent, however, that the Canadian National did not have as much advantage from its heavier power as might have been expected, as was shown by the fact that its average train load was but slightly higher than that of the Canadian Pacific.

ANALYSIS OF TRANSPORTATION EXPENSES

(a) *Train service costs.*

Reference to Table 19 shows that train service expenses of the Canadian National ($487,749,000) for the nine-year period were 31 per cent higher than those of the Canadian Pacific ($371,938,000). This difference may be compared with the following train service relationships: (1) total train mileage of the Canadian National was 24.1 per cent greater than that of the Canadian Pacific, (2) its locomotive mileage was 27.8 per cent greater, (3) its freight car mileage was 41.1 per cent greater and (4) its total car mileage was 37.2 per cent greater. On a train mile basis the train service costs of the Canadian National were 5.4 per cent higher than those of the Canadian Pacific. This difference, while not large as a percentage, is nevertheless important in that many of the items of train service costs are by their nature dependent largely upon train mileage such as wages of crews and fuel consumption. For this reason, the percentage difference in costs probably errs on the side of understatement as to relative transportation performance between the two companies. Moreover, the Canadian National had more passenger train mileage

than the traffic justified during the period, and from that standpoint its train service costs were higher than they otherwise would have been.

(b) *Yard service costs.*

Expenses for yard service on the Canadian National ($170,-291,000) for the nine years 1923 to 1931 exceeded those of the Canadian Pacific (95,156,000) by 79.0 per cent. This large difference between the yard expenses of the two companies calls for comment. Yard costs are related to the number of cars handled in yard operations rather than to car or traffic mileage. Statistics for these data were not available, so that it is only possible to direct attention to significant differences in the traffic characteristics of the two railways. Two factors which had a direct bearing on the larger yard costs of the Canadian National were: (1) it handled 64.5 per cent more freight tonnage than the Canadian Pacific; and (2) its average tonnage per car was 8.2 per cent less than that of the Canadian Pacific.

The following explanation of the higher yard costs of the Canadian National was given to the recent Royal Commission by an officer of the system:

"The Canadian Pacific nowhere has a yard problem comparable to the Canadian National. To be sure, each system has yards in the more important Canadian cities and ports and superficially the two systems may be inferred to be comparable. This is by no means the case. The Canadian National serves the highly industrialized section of Ontario to a much greater degree than the Canadian Pacific, and at the great international gateways of the Niagara frontier and the Detroit and St. Clair Rivers, the Canadian National carries on highly specialized terminal operations with which the Canadian Pacific has little or no parallel. For instance, at the Niagara gateway in the year 1929 the Canadian National interchanged traffic with nine railways amounting to 176,728 loaded cars. To carry on this interchange it was necessary to operate yards at Niagara Falls, Fort Erie and Black Rock. A similar situation is found at Detroit and St. Clair gateways, and the Canadian National has yards at Sarnia and Windsor.

"When one turns to the Grand Trunk Western lines, it is found that extensive terminal operations are carried on at Chicago and Detroit, and in addition practically every city in the industrial belt of Southern Michigan is served—e.g., South Bend (Indiana), Battle Creek (Michigan), Lansing, Flint, Pontiac, Jackson, Saginaw, Bay City, Muskegon and Grand Rapids."

Yard costs were 18.4 per cent of total transportation costs (less express, telephone and telegraph and floating equipment) on the Canadian National and 14.5 per cent on the Canadian Pacific. Similar ratios for other railways support the contention of the Canadian National that yard costs vary considerably as between different railways; thus for the year 1930 the ratio of yard costs to total rail transportation costs was 23.5 per cent on the Pennyslvania system, 24.2 per cent on the New York Central, 26.1 per cent on the Baltimore and Ohio, 16.3 per cent on the Great Northern, 19.1 per cent on the Northern Pacific and 18.0 per cent on the Southern Pacific. Naturally the last three properties are much more comparable with Canadian railways than the first three.

(c) *Station service expenses.*

Station service cost the Canadian National $161,388,000 for the nine years and the Canadian Pacific $114,021,000, or an excess for the Canadian National of 41.5 per cent. The bulk of the expenses for station service, including salaries and wages of station masters, ticket agents and train callers in the passenger service and clerks and freight handlers in the freight service is affected by the volume of traffic. Thus the major part of the expenses for station service is incurred in the large passenger and freight handling centers, where it tends to vary with the volume of traffic passing through the station. Comparable figures showing the relative volume of less-than-carload freight of the two systems for the period were not available. As a substitute for volume of traffic, the relationship of station expenses per dollar of revenue may be regarded as a reasonably satisfactory index, since revenues tend to allow for the nature of the traffic and the amount of handling required. On this basis of comparison the station expenses

of the Canadian National failed to reflect the same degree of economy of operation as those of the Canadian Pacific. Station service costs averaged 6.0 cents per dollar of revenue on the Canadian Pacific and 6.9 cents per dollar of revenue on the Canadian National, which was an excess of 15 per cent. A check on the propriety of using comparative revenue as a measure of station costs is attempted in the following table which gives the L.C.L. freight handled and passengers carried in relation to station expenses for the years 1932 and 1933, the only years for which L.C.L. freight figures were available:

	Tons L.C.L. Freight Handled		Number of Passengers Carried		Excess Can. Nat. over Can. Pac.			
	Canadian National	*Canadian Pacific*	*Canadian National*	*Canadian Pacific*	*L.C.L. Frt.*	*Pass. Carried*	*Stat. Exp's.*	*Total op't'g. Revenues*
1932	1,248,338	868,370	10,364,194	7,916,266	43.6%	30.9%	46.8%	23.3%
1933	1,094,164	782,664	9,434,812	7,173,527	39.8%	31.5%	47.6%	22.8%

It will be noted that the percentage relationships substantiate the observation that the Canadian Pacific conducted its station services on a more economical basis than the Canadian National.

CONCLUSIONS—ANALYSIS OF TRANSPORTATION COSTS

The foregoing discussion leads to the conclusion that in certain respects the Canadian National failed to equal the cost performance of the Canadian Pacific in the transportation department. The most favorable comparison was made in train service costs, although as was indicated, larger capital costs for new power equipment were incurred by the Canadian National than by the Canadian Pacific during the period. Supervisory costs of the Canadian National were materially out of line with those of the Canadian Pacific, and its yard and station costs were greater than the differences in operating conditions seemed to warrant. It was also shown that transportation costs of the Canadian National were higher than they should have been because of excessive passenger train mileage run in competitive and in unremunerative territory. The results of the analysis tend to confirm the conclusion developed at length in a later chapter that unified management of the

two railways under private control is necessary to relieve the serious financial condition of the railways and the Government.

TRAFFIC EXPENSES

Traffic expenses, which include solicitation of business, publishing and filing tariffs, etc., are compared for the nine-year period in Table 29.

TABLE 29

RAIL TRAFFIC EXPENSES 1923-31*

	Canadian National	*Canadian Pacific*
Superintendence	$18,060,000	$10,172,000
Outside agencies	23,983,000	26,019,000
Advertising and radio	13,448,000	13,318,000
Other	6,543,000	4,866,000
Total	$62,034,000	$54,375,000
Per $1,000 of Revenue	$26.54	$28.83

*To make the traffic expenses of the two railways comparable, the figures used for the Canadian National exclude the expenses relating to colonization, agriculture and natural resources amounting to $3,992,000, since the Canadian Pacific charges the expenses of its colonization and natural resources departments against its land sales.

TABLE 30

RAIL TRAFFIC EXPENSES AS A PERCENTAGE OF 1923

Year	*Canadian National*	*Canadian Pacific*
1923	100.0	100.0
1924	112.2	99.8
1925	108.4	94.2
1926	109.6	99.7
1927	119.8	106.8
1928	125.3	103.2
1929	132.1	106.8
1930	140.2	109.7
1931	123.3	102.9
1932	93.8	76.1
1933	83.3	68.3

The Canadian Pacific traffic organization supervises both railway and ocean steamship traffic. The figures used above include the proportion applicable to rail operations only, though the distribution must, of necessity, be of an arbitrary nature because at most agencies the staffs are located in the same premises, and, in many cases, the one staff solicits for

both services. However, on the basis of the allocation which was used, the traffic expenses of each railway may be taken as being on a uniform basis during the whole period, and a comparison may properly be made of the trend of the expenses of each company. Table 30 shows indices of rail traffic expenses of the two companies, using 1923 as the base year.

It will be noted that in 1924, the year after consolidation, the Canadian National increased its traffic expenses 12.2 per cent while those of the Canadian Pacific remained practically stationary. By 1930 the Canadian National had increased its traffic expenses 40.2 per cent as compared with 9.7 per cent by its competitor. The rise of traffic expenses on the Canadian National was related to its policy of competing more aggressively for traffic and particularly for the tourist and other transcontinental passenger business, to which attention has already been directed.

There was one item in the expenses of the Canadian National which calls for special mention, for it will appeal to some as an interesting innovation and to others as a wasteful competitive practice. This was the radio department, which, beginning in 1924, built and operated a chain of broadcasting stations and installed receiving sets in passenger trains, when no other railway on the continent was embarking on such a policy. When the demand for rigid economies became imperative, this venture was subsequently abandoned.

GENERAL EXPENSES

General expenses include the salaries and expenses of general officers, the salaries and expenses of clerks and attendants, law expenses, insurance (in the case of the Canadian Pacific but not in the case of the Canadian National, except for insurance on general offices in Montreal, since insurance is charged by the Canadian National to other expense categories such as maintenance of way and structures, etc.), pensions, stationery and printing and other general expenses. A summary of the general expenses of the two railways for the nine-year period, 1923-1931, is given in the following table:

TABLE 31

GENERAL EXPENSES, 1923-31

	Canadian National	Canadian Pacific	Per Cent Excess C.N. over C.P.
Salaries and expenses of general officers	$ 8,876,000	$ 4,864,000	82.5
Salaries and expenses of clerks and attendants	35,720,000	16,550,000	115.8
Law expenses	4,740,000	2,505,000	89.2
Stationery and printing	1,774,000	1,379,000	28.6
Other	9,673,000	6,459,000	49.8
Total (excl. insur. and pensions)	$60,783,000	$31,757,000	91.4
Insurance	27,000	4,232,000	......
Pensions	12,352,000	7,181,000	72.0
Grand Total	$73,162,000	$43,170,000	69.5

The total general expenses of the Canadian National for the years 1923 to 1931 were $73,162,000, and those of the Canadian Pacific, $43,170,000, or an excess for the Canadian National of 69.5 per cent. Excluding pensions and insurance, the general expenses of the Canadian National were 91.4 per cent higher than those of the Canadian Pacific for the period.

Although general expenses of the Canadian National compared very unfavorably with those of the Canadian Pacific, they were not out of line with the average for Class I railroads of the United States. It appears in fact that the general expenses of the Canadian Pacific in relation to other railways were extremely low, when compared with general expenses of Class I railroads of the United States. A probable explanation of this disparity is that it is caused by important differences in operating conditions in Canada and the United States. The larger proportion of interline and short haul business on railroads in the United States requires heavier accounting expense per dollar of revenue than in Canada and the ramifications of federal and state regulation make extra staff necessary as compared with Canadian railways. It should be borne in mind, however, that the Canadian National has more extensive operations in the United States than the Canadian Pacific and to that extent its operations would be subjected to the same in-

fluence as railroads in the United States. In addition there is no doubt that the greater intercorporate complexity of the Canadian National and its relations to the Government gave rise to clerical expense for which the Canadian Pacific had no counterpart. The comparison of general expenses per dollar of revenue as between the Canadian National, the Canadian Pacific and Class I railroads of the United States is shown in Table 32.

TABLE 32

PERCENTAGE RATIO OF GENERAL EXPENSES* TO TOTAL REVENUES, 1926-31

Year	*Canadian National*	*United States Class I Railroads*	*Canadian Pacific*
1926	2.37	2.54	1.53
1927	2.39	2.71	1.60
1928	2.17	2.71	1.45
1929	2.31	2.68	1.59
1930	2.85	3.07	1.95
1931	3.27	3.56	2.32
Six-year ratio	2.51	2.83	1.70

*Excludes insurance aand pensions.

TABLE 33

PERCENTAGE RATIO OF GENERAL EXPENSES* TO TOTAL OPERATING EXPENSES, 1926-31

Year	*Canadian National*	*United States Class I Railroads*	*Canadian Pacific*
1926	2.87	3.47	2.02
1927	2.81	3.63	2.04
1928	2.65	3.74	1.92
1929	2.70	3.73	2.06
1930	3.13	4.13	2.48
1931	3.29	4.62	2.89
Six-year ratio	2.89	3.84	2.20

*Excludes insurance aand pensions.

Considering the relatively low revenues per mile of road of the Canadian National it is also desirable to present the relation of general expenses to total operating expenses. This has the effect of diminishing somewhat the difference between the Canadian National and the Canadian Pacific, on account of the generally higher operating expenses of the Can-

adian National, and on this basis, general expenses of the Canadian National and the Canadian Pacific were materially lower than the average for Class I roads of the United States.

Analysis of the trend of general expenses (other than insurance and pensions) of the Canadian National and the Canadian Pacific from 1923 to 1931 shows a decline in the amount of general expenses of the Canadian National of 12 per cent compared with a slight increase for the Canadian Pacific. This is shown by the following figures for general expenses (less pensions and insurance) of each railway for the years 1923, 1929, 1930 and 1931.[14]

	1923	*1929*	*1930*	*1931*
Canadian National	$7,429,000	$6,714,000	$7,138,000	$6,561,000
Canadian Pacific	3,411,000	3,719,000	3,818,000	3,601,000

After 1931, under pressure from the Government following the report of the Royal Commission, the Canadian National succeeded in reducing the amount by which its general expenses exceeded those of the Canadian Pacific. Thus its general expenses (less insurance and pensions) were $4,-465,000 in 1933, or an excess of 48 per cent over the general expenses of the Canadian Pacific ($3,008,000), as compared with an excess of 82 per cent in 1931. Stated in another way, the general expenses of the Canadian National were reduced 32 per cent, and those of the Canadian Pacific were reduced 16 per cent as compared with 1931. This signifies nothing more than the fact that there were greater opportunities for pruning on the Canadian National. The changes in the principal items are shown in Table 34.

The decisive reduction in the salaries and expenses of general officers of the Canadian National from the high level previously prevailing is an indication of a drive for more economical operation during the depression. Since 1931 there has been a re-organization of the official personnel of the Canadian National and the extent of

[14]It is informative to note that the general expenses of the Canadian National in 1922 were $6,800,000 and those of the Canadian Pacific were $3,468,000. Thus, after consolidation there was a marked increase in the general expenses of the Canadian National, although it was to be expected that consolidation would have brought economies in the administration of the properties.

TABLE 34

General Expenses

	System	1931 Amount	1931 Per $100 of Revenue	1933 Amount	1933 Per $100 of Revenue
Salaries and expenses of general officers	C.N.	$ 985,000	$0.49	$ 401,000	$0.27
	C.P.	536,000	0.35	456,000	0.38
Salaries and expenses of clerks and attendants	C.N.	3,843,000	1.92	3,008,000	2.03
	C.P.	1,913,000	1.23	1,647,000	1.36
Law expenses	C.N.	546,000	0.27	395,000	0.27
	C.P.	261,000	0.17	234,000	0.19
All other general expenses (excluding insurance and pensions)	C.N.	1,187,000	0.59	661,000	0.44
	C.P.	891,000	0.57	671,000	0.56
Total general expenses (excluding insurance and pensions)	C.N.	6,561,000	3.27	4,465,000	3.01
	C.P.	3,601,000	2.32	3,008,000	2.49

the reduction in the salaries and expenses of general officers suggests that there may also have been a re-classification of positions. Allowing for the fact that part of the decrease was clearly of an emergency character, it appears that the expenses for 1931 and the years previous were on a scale that was too liberal, particularly in view of the large annual deficits of the system.

SUPERVISORY EXPENSES

Supervisory expenses are included in the major expense categories already covered, such as maintenance of way and structures, etc., but special treatment of superintendence has

TABLE 35

Supervisory Expenses 1923-31

	Canadian National	Canadian Pacific
Superintendence maintenance of way and structures	$31,315,000	$11,470,000
Superintendence maintenance of equipment	16,609,000	5,806,000
Superintendence traffic (exc. steamships)	18,060,000	10,172,000
Superintendence transportation	34,753,000	21,269,000
Salaries and expenses of general officers	8,876,000	4,864,000
Salaries and expenses of clerks	35,720,000	16,550,000
	$145,333,000	$70,131,000
Per $100 of Revenue	$6.22	$3.72
Per $100 of Expense	$7.07	$4.76

been deferred to the present section. Attention will now be given to the cost of supervision on the two railways in comparison with the cost of supervising Class I railroads of the United States. Table 35 gives a classification of the total cost of supervision (including the salaries and expenses of clerks and attendants) for the Canadian National and the Canadian Pacific for the years 1923 to 1931 inclusive.

Cursory reference to the foregoing figures indicates either that the Canadian National was extravagant respecting its supervisory costs or that the Canadian Pacific costs were extremely low. The particular supervisory problems of each railway and the relation of its supervisory costs to those of American railroads have to be considered before one can safely draw conclusions. Table 36 gives the ratio of each class of supervisory expense to operating revenues and to operating expenses for the Canadian National, the Canadian Pacific and Class I railroads of the United States for the years 1923 to 1931. For comparative purposes figures are included for 1932 and 1933.

TABLE 36

AVERAGE RATIO OF SUPERVISORY EXPENSES TO OPERATING REVENUES AND EXPENSES 1923-31

	Per Cent of Total Operating Revenues			Per Cent of Total Operating Expenses		
	Can. Nat.	*Can. Pac.*	*U.S. Class I R.R.'s*	*Can. Nat.*	*Can. Pac.*	*U.S. Class I R.R.'s*
Superintendence Mtce. of W. & S.	1.339	.608	.945	1.523	.779	1.281
Superintendence Mtce. of equipm't.	.710	.308	.746	.808	.394	1.009
Superintendence traffic	.773	.539	.626	.878	.690	.856
Superintendence transportation	1.487	1.128	1.128	1.690	1.444	1.524
Salaries and expenses general officers	.380	.258	.332	.431	.330	.453
Salaries and expenses clerks	1.528	.878	1.544	1.737	1.123	2.094
Total	6.217	3.719	5.321	7.067	4.760	7.217
1932 Total	8.219	5.419	7.119	8.531	6.707	9.261
1933 Total	7.971	5.269	6.405	8.289	6.717	8.815

The supervisory costs of the Canadian National were considerably higher than those of the Canadian Pacific and even those of Class I roads of the United States on the basis of the

ratio of supervisory expenses to total operating revenues. Since operating expenses of the Canadian National in relation to total revenues were higher than in the case of Class I roads of the United States, the disparity in Canadian National supervisory costs does not show up unfavorably on the basis of the ratio of supervisory costs to operating expenses. Nevertheless, it should be remembered that Canadian railways are in a more favorable position for lower supervisory costs than are American railroads. The reasons for this have already been referred to in the section dealing with general expenses. On the basis of revenues the Canadian National had supervisory costs which were 16 per cent higher than those of Class I railroads of the United States. The difference was principally in the maintenance of way and transportation supervisory items, both of which appear to have been excessive. For the year 1930 the ratio of supervisory costs to total revenues for selected railways in comparison with the Canadian National and the Canadian Pacific was as follows: Pennsylvania Railroad 5.88 per cent, New York Central 6.02 per cent, Baltimore & Ohio 6.35 per cent, Santa Fé 5.82 per cent, Southern Pacific 5.61 per cent, Northern Pacific 6.53 per cent, Canadian Pacific 4.20 per cent, and Canadian National 6.94 per cent.

TABLE 37

SUPERVISORY EXPENSES, 1933 COMPARED WITH 1930

		1930	1933
Superintendence Mtce. of W. & S.	C.N.	$3,941,000	$2,820,000
	C.P.	1,372,000	1,044,000
Superintendence Mtce. of equipment	C.N.	2,010,000	1,251,000
	C.P.	696,000	579,000
Superintendence traffic	C.N.	2,215,000	1,564,000
	C.P.	1,205,000	914,000
Superintendence transportation	C.N.	4,101,000	2,795,000
	C.P.	2,454,000	1,732,000
Salaries and expenses general officers	C.N.	1,104,000	400,000
	C.P.	587,000	456,000
Salaries and expenses clerks	C.N.	4,017,000	3,008,000
	C.P.	1,929,000	1,647,000
Total Supervision	C.N.	$17,388,000	$11,838,000
	C.P.	8,243,000	6,372,000

Table 37 shows that both railways have reduced their supervisory expenses materially since 1930. The decrease in 1933 from 1930 was 22.7 per cent for the Canadian Pacific and 31.9 per cent for the Canadian National. From what has already been said, it appears that there was undoubtedly greater opportunity for a downward revision of supervisory expenses on the Canadian National than on the Canadian Pacific.

COMPARATIVE INCOME RESULTS 1923-33

To complete the analysis of operating results, the following tables show the annual net income available for interest and dividends from 1923 to 1933. They give in separate columns (1) net income available for interest and dividends (this figure includes the net income from railway operations to which is added or subtracted the net income or deficit from miscellaneous operations such as hotels and other income or expense such as hire of equipment, rentals, joint facilities and investments), (2) interest on funded debt and (3) net income

TABLE 38

COMPARATIVE INCOME RESULTS

CANADIAN NATIONAL RAILWAY SYSTEM, 1923-33

Year	1 *Net Income Available for Interest**	2 *Interest on Funded Debt in Hands of Public*	3 *Net Deficit or Income after Interest on Funded Debt**	4 *Interest on Government Loans*	5 *Total Deficit**
1923	$13,501,649	$35,041,380	*$21,539,731*	$30,157,944	*$51,697,675*
1924	14,772,328	38,361,704	*23,589,376*	31,271,043	*54,860,419*
1925	30,443,853	40,438,235	*9,994,382*	31,450,382	*41,444,764*
1926	41,586,242	39,197,233	2,389,009	32,090,454	*29,701,445*
1927	36,325,419	40,526,097	*4,200,678*	32,505,234	*36,705,912*
1928	44,449,780	41,810,880	2,638,900	32,507,337	*29,868,437*
1929	32,095,274	45,503,979	*13,408,705*	32,690,545	*46,099,250*
1930	15,730,227	51,316,121	*35,585,894*	32,693,876	*68,279,770*
1931	*5,282,650*	55,587,145	*60,869,795*	32,643,624	*93,513,419*
1932	*4,041,640*	56,965,279	*61,006,919*	35,525,540	*96,532,459*
1933	*3,552,286*	56,465,427	*60,017,713*	36,034,141	*96,051,854*
11-year Total	$216,028,196	$501,213,480	*$285,185,284*	$359,570,120	*$644,755,404*

*Deficits are italicized.

or deficit after interest on funded debt. Two additional columns are included for the Canadian National to show interest on Government loans and total deficit. The figures for the Canadian National include the operations of the Central Vermont Railway since February 1, 1930, and for the Canadian Pacific, the entire system as described in the footnote on page 127.

Reference to column 1 shows that there was a material increase in the amount of net income available for interest from 1925 to 1928 inclusive, with but a moderate increase in the interest on funded debt in the hands of the public. The result was a significant decrease in the net deficit after interest on funded debt (due public) in those years; in fact in 1926 and 1928 there was a small net income after interest on funded debt. The story from 1928 on takes a very different turn, for the rapidly increasing item of interest on funded debt was bound to become embarrassing even if there had not been a severe depression to add to the financial embarrassment. As shown in column 2, interest increased more or less gradually from $35,041,380 in 1923 to $41,810,880 in 1928, and then by leaps and bounds to a peak of $56,965,279 in 1932, which was an increase of nearly $22,000,000 in 10 years. It is inconceivable how anyone could ever have believed that the property could stand such demands for increased interest. In this connection it may be remarked that gross operating revenues were practically the same in 1930 as they had been in 1924, but the interest requirement had so increased by 1930 that the net deficit after interest on funded debt showed an increase of approximately $12,000,000. The net deficit after interest on funded debt amounted to $285,185,284 for the eleven years, and after simple interest on Government loans the total deficit was $644,755,404. Moreover, it should be remembered that in arriving at these deficit figures, no account was taken of interest on the capital investment in the Canadian Government Railways proper, which investment is in excess of $400,000,000. The following table gives comparable figures for the Canadian Pacific System.

TABLE 39

Comparative Income Results
Canadian Pacific Railway System, 1923-33

Year	1 *Net Income Available for Interest and Dividends**	2 *Interest on Funded Debt*	3 *Net Income or Deficit after Interest on Funded Debt***	4 *Preferred and Common Dividends Paid*
1923	$45,394,457	$10,950,933	$34,443,524	$29,675,010
1924	43,378,187	11,502,733	31,875,454	29,993,341
1925	47,832,609	11,912,414	35,920,195	30,005,944
1926	52,670,173	12,321,890	40,348,283	30,005,944
1927	48,008,141	13,107,790	34,900,351	30,005,944
1928	61,864,295	13,007,722	48,856,573	33,421,180
1929	55,573,280	13,800,618	41,772,662	35,424,790
1930	52,467,008	16,769,154	35,697,854	38,248,531
1931	30,267,126	18,765,517	11,501,609	22,160,697
1932	19,736,807	20,160,922	*424,115*	2,745,138
1933	22,202,126	20,944,965	1,257,161	———
11-year Total	$479,394,209	$163,244,658	$316,149,551	$281,686,519

*Includes Special Income from ocean and coastal steamships, dividends and interest on securities and deposits, results of separately operated properties, hotel operations, etc.
**Deficits are in italics.

The figures in Table 39 show that the Canadian Pacific enjoyed a strong financial position until 1930, when, for the first time in many years, its net income failed by a narrow margin to equal the amount of preferred and common stock dividends. From 1911 until 1930 dividends of 10 per cent per annum were paid on the common stock. Each year from 1923 to 1929 inclusive there was an ample margin of safety for the common stock dividends. In 1931, only half of the reduced dividends paid in that year were earned, and in 1932 there was a small deficit after fixed charges. During the period interest requirements increased from $10,950,933 to $20,-944,965 in 1933, as compared with an increase of over $21,-000,000 in the interest on funded debt (due public) of the Canadian National. The vast difference between the requirements for interest on the two railways should be noted. In the case of the Canadian National, the interest on its outstanding funded debt (due public) was $56,965,000 in 1932 as compared with $20,161,000 on the Canadian Pacific. The de-

mands for interest proved to be a terrible burden to the Canadian National and the Government in the years 1931-1933, when there was a net cash deficit in excess of $60,000,000 a year. The financial requirements of the Canadian Pacific were much more flexible, in that it was possible to suspend the payment of preferred and common stock dividends.

CONCLUSIONS

From the standpoint of the character of service rendered the travelling and shipping public, it is the general consensus of opinion in Canada that there is little to choose between the Canadian National and the Canadian Pacific. Yet there was a marked difference in the cost of operations on the two railways. For the period 1923 to 1931 the average ratio of railway operating expenses to railway operating revenues was 87.97 on the Canadian National and 78.12 on the Canadian Pacific. As pointed out, the Canadian National was at a disadvantage in some respects as compared with the Canadian Pacific. This applied particularly to some of its operating characteristics and to the fact that it had not been built as a single system. But the detailed analysis of comparative costs showed that the disparity between the unit operating costs of the two railways was greater than could fairly be explained by differences in their operating characteristics. It will be remembered that this was the conclusion expressed by the recent Royal Commission.

The real reason for the disparity in costs between the two railways would seem to be that the expenses of the Canadian National were out of proportion to the traffic conditions which existed on its lines. Its standards of maintenance, the character and extent of its service, its supervisory costs and its policies of capital expansion would only have been sound economically if the gross earnings of the system had been much greater than they actually were. The truth is that the Canadian National made the mistake of attempting to duplicate and even exceed the standards and services of its private competitor, without sufficient traffic to make that policy sound. It may well be

that if the Canadian National had not been competing with a strongly entrenched private system, its operating policies might have been more in accord with sound administrative practice. Yet the defects in the Canadian railway situation were not alone the waste of unrestrained competitive service. More important was the fact that one of the competitors was a publicly owned system. A careful and unbiased study of the operations of the Canadian National confirms the conclusion expressed by the recent Royal Commission as follows:[15] "The disciplinary check upon undue expenditure, inherent in private corporations because of their limited financial resources, has not been in evidence. Requisitions of the management have been endorsed by governments, and successive parliaments have voted money freely, if not lavishly. Within the railway organization there has been freedom in expenditure and encouragement in plans for expansion and extension of services which were inconsistent with prudent administrative practice."

It has already been intimated that the principles underlying the administrative control of the Canadian National were defective. The Drayton-Acworth Commission believed that through the appointment of an independent, non-political board of trustees it would be possible to eliminate the element of political interference and so obtain an administration of the government railway system substantially similar to that of a large private system. The recommendation was not followed, largely because the Government felt that sectional interests and considerations required a board of directors which would be representative of every part of Canada. Yet such a policy of local representation could scarcely be reconciled with the avowed declaration of successive Governments that the government railway would be operated strictly as a commercial enterprise. Even the President was appointed by the Government rather than by the board of directors to whom he should have been responsible. Under legislation passed in 1933, a group of three trustees was appointed to replace the existing directorate of the Canadian National Railways, to direct the system "free

[15]Report of The Royal Commission to Inquire into Railways and Transportation in Canada, 1931-2, p. 13.

from control or restraint so far as governments are concerned" in the words of the Prime Minister. The fact is, however, as subsequent events have shown, that it simply is not possible to divorce the administration of the Canadian National from political influence or pressure, because voters will invariably exercise their displeasure against the Government if it fails to interfere with railway policies which happen to meet with their disfavor. No board of trustees of the Canadian National could afford to overlook this factor, and as long as the system is dependent upon the Government for the funds to meet its deficits the Government will play an important and costly part in its administration. The difficulty seems to be that the voters (i.e., the Canadian National stockholders) are much more conscious of the railway service which is available to them, than they are of the effect of railway deficits on their taxes. For it is not contended that the executives of the Canadian National are less competent than the executives of the Canadian Pacific, but that their emphasis on service[16] frequently leads to expenditures which the traffic does not warrant. Such a policy would eventually ruin a private company.

[16]Without the same demand for a proper balance between income and expenses as is essential in the operation of a private property.

CHAPTER IX

CAPITAL EXPENDITURES OF THE CANADIAN NATIONAL AND THE CANADIAN PACIFIC 1923-1931

THE Canadian National and the Canadian Pacific spent $805,000,000 on capital account in the nine-year period, 1923-1931. This amount included expenditures for over 5,000 miles of branch lines, additions and betterments to roadway, additions and improvements to rolling stock, hotels, telegraph lines, river and coastal services, and in the case of the Canadian Pacific $50,000,000 for ocean steamships. An itemized statement of the capital expenditures of each railway is given in the following table:

CAPITAL EXPENDITURES, 1923-31[1]

	*Canadian National**	*Canadian Pacific*
Rail and Inland Water Lines		
1. New lines constructed	$ 73,256,570	$ 65,067,288
2. New lines acquired	18,780,309	5,347,378
3. Montreal terminal development	14,636,877	----------
4. Additions and betterments to roadway	149,943,098	84,235,732
5. Rolling stock	132,994,821	65,964,010
6. Lake and river services	4,599,294	178,254
Total rail and inland water lines	$394,210,969	$220,792,662
Other Expenditures		
7. Railway jointly owned by the two systems	17,935,558	16,559,800
8. Coastal services	7,201,117	6,339,304
9. Hotels	22,153,824	46,887,999
10. Commercial and railway telegraphs	8,337,919	6,187,007
11. Investments in other companies	6,506,068	1,738,747
Total	$456,345,455	$298,505,519

*Includes Central Vermont.

[1]In addition, the Canadian Pacific expended $50,271,336 on ocean steamships. The Canadian Government expenditures for Merchant Marine and West Indies services are not carried in the accounts of the Canadian National. Report of the Royal Commission to Inquire into Railways and Transportation in Canada, 1931-2, pp. 19-20. Hereafter this reference will be called the *Duff Commission Report.*

There are several questions that require an answer with respect to this very large new investment of capital. How much of it was justified under any form of railway ownership and management on the basis of the growing traffic needs of the country? How much was justified by virtue of the improved efficiency of operations resulting from capital improvements? How much of it was the result of excessive rivalry between two powerful competitors? How much of the Canadian National outlay can fairly be called "extravagant and lavish expenditure of public funds"? Analysis designed to answer these questions is complicated by the inherent difficulty of measuring the economic results of capital expenditures, particularly in view of the extreme decline in railway revenues under the impact of the depression.

In considering the capital expenditures of the period it is important to bear in mind certain fundamental differences in the situation of the two companies. The Canadian Pacific since its inception had followed a progressive policy of development and expansion. Its actions were subject to all the usual controls inherent in the development of a private enterprise. The capital employed was secured by a moderate issue of interest-bearing securities, and through the issue of new capital stock which sold at a substantial premium over par during the nine-year period. The Grand Trunk, the Grand Trunk Pacific, and the National Transcontinental Railways had been built originally to a very high standard of railway construction while, on the other hand, the Canadian Northern had been cheaply built. On all the component parts of the Canadian National a large amount of capital had been expended between the date the properties were taken over by the Government and 1922. The capital expenditures made subsequent to 1923 were for a railway not yet earning its existing interest commitments, and were only possible through the backing of the Federal Government. It was not unnatural that the Canadian National should endeavor to equal or surpass the progress of its wealthy privately owned competitor, but it is necessary in judging the capital expenditures of the period 1923-1931 to keep these features

clearly in mind. In so far as the Canadian National is concerned, it was understood by informed people, when the Canadian National System was created from rundown railways, that a large capital outlay would be required to put it in shape to compete with the Canadian Pacific.[2] Thus, in his letter to the Government in April 1921, outlining his suggested plan of amalgamating the Canadian National and the Canadian Pacific, Lord Shaughnessy, President of the Canadian Pacific, pointed out that in respect to much of the new National System "there is no rolling stock equipment, nor are there terminal yards, freight facilities, repair shops or other requirements commensurate with a system of this magnitude, and the cost of providing them will be very great indeed."[3] These remarks were made before the Grand Trunk became part of the Canadian National System.

Failing to follow the advice of Lord Shaughnessy, the Government still had open three alternatives. First, it could divest itself of the railways by turning them over to some other private syndicate, under a contract relieving the Government of further financial support beyond that to which it was already committed. Secondly, it could operate the new system as best it could with a minimum of new capital investment; or thirdly, it could proceed to put the system in a position to meet competition effectively by offering the public facilities approaching those obtainable on the Canadian Pacific. The condition that confronted the Government and the course pursued were described lucidly by the leader of the Conservative Party, Mr. R. B. Bennett, in 1928, at a time when prosperous business conditions seemed to indicate that the policy followed might prove to be a wise one. He said:[4] "These railroads were not roads that could compete with the Canadian Pacific System, and so we had to spend hundreds of millions of dollars upon the system to make it efficient and effective."

[2]It is important to note that this statement applies to the situation as it existed in 1919, since there were capital expenditures on the lines comprising the present Canadian National System of approximately $50,000,000 a year for the years 1919 to 1922 inclusive.

[3]*The Canadian Annual Review*, 1921, p. 410.

[4]House of Commons Debates, Canada, June 8, 1928.

Yet it now appears that those who were responsible for determining the railway policy of the country never properly appreciated: (1) what would be the cost of improving the Canadian National System to the point where it could compete with a strongly entrenched first-class railway like the Canadian Pacific or (2) what the effect would be on the Canadian Pacific and the taxpayer after the policy was effectuated. It is unfortunate that it took a major depression to establish the fact that safeguards should have been created to ensure co-operation in the expansion policies of the two railways and at the same time to keep the capital program of the Canadian National within reasonable economic limits. In the following analysis an attempt will be made to indicate how much of the capital outlay of the Canadian National was excessive as measured by the economic needs of the system and by its ability to yield a return thereon. Attention will first be directed to a comparison of the different classes of expenditures.

BRANCH LINE EXPENDITURES

Considering the fact that Canada is overbuilt with railways it is natural to question the huge outlay for thousands of miles of branch lines. During the nine years the two railways spent $162,451,545 for the construction of new lines and the acquisition of existing lines. A summary of the expenditures for new lines by provinces shows that the bulk of the railway development for the period was in the prairie provinces:[5]

BRANCH LINE CONSTRUCTION BY PROVINCES, 1923-31

Provinces	*Canadian National*	*Canadian Pacific*
Nova Scotia	$ 3,755,699	
Prince Edward Island	367,708	
Quebec	9,056,573	$ 3,971,062
Ontario	3,413,313	633,486
Manitoba	9,862,746	72,225
Saskatchewan	30,803,441	38,694,673
Alberta	8,658,296	18,135,401
British Columbia	5,210,854	3,560,441
	$71,128,630	
Michigan (U.S.A.)	2,127,940	
Total Expenditure	$73,256,570	$65,067,288
Mileage	1,895	2,266

[5]Duff Commission Report, p. 20.

A disparity in the cost of branch line construction of the two railways is shown by the following comparative figures:[6]

COST OF BRANCH LINE CONSTRUCTION

	Canadian National		Canadian Pacific	
	Miles	*Av. cost per mile*	*Miles*	*Av. cost per mile*
Lines under construction Jan. 1, 1923, placed in operation 1923-31	319.21	$40,214	324.1	$35,470
Lines started subsequent to Jan. 1, 1923, placed in operation 1923-31	1,077.42	48,396	1,516.4	31,763
Lines under construction, December 31, 1931	498.70	51,640	425.4	30,229
Total	1,895.33	$47,872	2,265.9	$32,005

Excess cost Canadian National construction, 1,895.33 miles, at $15,867 per mile $30,073,201

In connection with the foregoing figures the recent Royal Commission said:[7] "It will be observed that the average cost per mile in the case of the Canadian National has shown a progressive increase, rising from $40,214 to $51,640 over the period, while the average cost per mile of the Canadian Pacific over the same period has declined from $35,470 to $30,229. The cost of individual branch lines varies not only as between the two systems but as between branches of the same system; nevertheless, a majority of the lines were built in similar territory for like purposes. This difference in costs represents an addition to the annual interest charge of almost $800 per mile [of new line]."

It would require a detailed study of the various new lines constructed by each company to prove or disprove the implication in the Commission's statement, for the fact cannot be denied that the cost of constructing new mileage varies widely under different physical conditions. Each railway in fact did submit a list of lines constructed or under construction in the years 1923 to 1931, and it is reasonable to presume that the Commission's inference was based not alone upon the average cost of new lines but upon a study of the detailed submission

[6] *Ibid.*, p. 21.
[7] *Idem.*

of each railway. In a lengthy memorandum dated November 3, 1932, the Canadian National criticized the Royal Commission's statement concerning comparative costs of branch line construction.[8] After admitting that the majority of lines. e.g., those on the open Prairie, were generally built in similar territory and for like purposes, the Canadian National contended that the balance of the new lines of the two companies was not properly comparable. The memorandum then proceeded to classify the new lines of each system into seventeen groups on the following basis for purposes of comparison:

Lines Constructed:

(1) Agricultural lines in open Prairie.
(2) Agricultural lines in partly timbered sections of the Prairie.
(3) Lines in British Columbia.
(4) Lines to mines in Manitoba.
(5) Lines to mines in Ontario.
(6) Lines to mines in Quebec.
(7) Tunnel lines.
(8) Lines for cut-offs or grade reduction, loop and connecting lines, none of which were for opening new territory.[9]

Lines Under Construction:

(9) to (16) Same groups and order as for lines constructed.
(17) Lines for development in Nova Scotia.

The newly constructed lines of each company were then allocated to the various groups, and the total cost and average cost per mile of the lines in each group were compared. A condensed version of the results for the prairie lines, rearranged so as to contrast the cost of lines under construction with the cost of constructed lines, follows:[10]

[8]Memorandum on Royal Commission on Transportation Statement on Costs of Branch Line Construction.

[9]In this group (and its counterpart, group 16) the Canadian National had 187.53 miles of new line, at a cost of $17,230,397 or an average cost of $91,880 per mile as compared with one short section a mile long on the Canadian Pacific which cost $383,066.

[10]*Ibid.*, pp. 8 and 11.

Prairie Branch Line Construction 1923-31

	Mileage		Average Cost per Mile			
	Canadian National	*Canadian Pacific*	*Canadian National*	*Canadian Pacific*	*Excess C.N. over C.P.*	*Per Cent*
Agricultural Lines in Open Prairie:						
Constructed	591.3	1,264.9	$29,031	$27,899	$1,132	4.1
Under Construction 31/12/31	201.3	295.0	40,154	29,829	10,325	34.6
Total	792.6	1,559.9	$31,797	$28,265	$3,532	12.5
Agricultural Lines in Partly Timbered Section of Prairie:						
Constructed	355.4	431.3	$36,230	$31,538	$4,692	14.9
Under Construction 31/12/31	155.9	130.4	39,184	31,132	8,052	25.9
Total	511.3	561.7	$37,128	$31,444	$5,684	18.1

The significant fact that may be derived from the foregoing figures is that the average cost of branch lines of the Canadian National in all four groups exceeded that of the Canadian Pacific. It further appears that there was a sufficient amount of mileage and similarity of general physical conditions in the four groups to ensure a reasonable comparison. Thus, accepting the basis of grouping adopted by the Canadian National, and without questioning its allocation of its own and its competitor's lines to these groups, one finds that the costs of the Canadian National were higher in the comparable groups. It is difficult to avoid the conclusion that the higher costs of branch line construction on the Canadian National were related to the government ownership of the system. In view of the importance of the question of the comparative efficiency of the two railways in their capital expenditures, the Royal Commission might well have given a more detailed comparison of branch line construction.

Certain facts regarding the line expansion program of the two railways are pertinent to an analysis of the policies involved. It may be noted that $57,000,000 of the Canadian Pacific program out of a total of $65,000,000 were spent in

three prairie provinces. The figures for the Canadian National show an outlay of $49,000,000 in the prairie provinces out of a total expenditure of $73,000,000.[11] However, $9,000,000 of the Canadian National investment in Manitoba were for very costly construction far to the north to tap the Flin Flon and Sherritt-Gordon mining properties in the Hudson Bay Railway territory. Therefore it would be more correct to say that the Canadian National spent $40,000,000 in prairie line construction compared with $57,000,000 for the Canadian Pacific. There was very great rivalry between the two railways with respect to much of this construction. Officials of both railways have testified that considerable construction was undertaken that might otherwise have been postponed, had it not been for the desire of each railway to maintain its relative position with regard to its competitor.[12]

A large part of the competitive construction took place in Saskatchewan and Alberta, north of the main line of the Canadian National.[13] This tended to accentuate the intensity of the rivalry, since the Canadian National regarded the branch line program of the Canadian Pacific in this territory as an encroachment on territory already served by or tributary to the Canadian National. Yet it is to be noted that the authority for the branch line programs of both railways was granted by the Dominion Parliament. In the same manner fifteen or twenty years earlier, Parliament had permitted the Canadian Northern to invade territory naturally tributary to the Canadian Pacific, so as to enable it to reach established distributing centres and to divide the traffic from the older grain-growing districts. Presumably on the basis of that experience and because the people of important distributing points were anxious to secure competitive railway service, the Canadian Pacific felt that its branch line policy was justified. A further reason

[11]It is not without interest to note that in 1929 (an election year) the construction program of the Canadian National included new construction in almost every province of Canada.

[12]Duff Commission Report, p. 21.

[13]"Competitive construction" is a broad term which includes rivalry to enter a particular area first as well as rivalry which resulted in an actual duplication or paralleling of lines.

for the northward development of the Canadian Pacific was its desire to share in the future prosperity of the northern prairie and in the possible mineral developments in the North. The justification for such a desire was the fear that the future might see a gradual decline in the tonnage produced per cultivated acre in the older Canadian Pacific wheat-growing territories. This competitive construction was directed towards securing a maximum share of potential traffic. Elsewhere in Canada competitive construction directed towards securing existing traffic was also engaged in, with the Canadian National as the main aggressor.

Considering all of the foregoing facts one is forced to agree with the conclusion of the Royal Commission that it would be fruitless to apportion the blame for the competition in branch line construction, but that "it is imperative that conditions be imposed that will make impossible a repetition of the rivalry in the extension of railway mileage that marked the period from 1923 to 1931."[14]

It must not be imagined that all of the branch line construction in the Canadian prairie provinces was due to competition or was uneconomic. Part of the construction would have taken place under the conditions that existed regardless of competition. This was brought out in a statement prepared by the Canadian Pacific for the Royal Commission as follows: "The principal branch line construction took place in Western Canada. The declaration of war in 1914 had brought to a close a decade of active—almost frantic—railway building in western Canada . . . During the period of the conflict every effort was made to stimulate production of foodstuffs in the prairie provinces —high prices for grain were established—with the result that land holdings per individual were increased and the dispossessed farmers migrated to new districts remote from existing railway lines, tempted to some extent by the prospect of obtaining virgin land which, when broken, would immediately produce a large tonnage of wheat. The return per acre was such that the expense and effort of a long wagon haul to the

[14]Duff Commission Report, p. 21.

primary markets could be ignored. When the war was over, and it was recognized that grain prices must find their natural level, these settlers began a vigorous agitation for more convenient transportation arrangements and in their campaign had the support of the entire business community. It had to be admitted that, with normal prices for grain, producers could not afford an initial road haul of more than fifteen or twenty miles. In order that the financial obligations of the country could be provided for, it was obvious that there must be an increase in population and in productive capacity. It would have been useless to have broken more land in outlying districts if railways were not available. The railway companies, therefore, found a new building program inevitable."

On account of the disturbing influence of the depression it is not practicable to analyze the operating results of the branch lines constructed and placed in operation in the past ten years. The branch line program of each railway was speeded up in 1927 and 1928 by competitive factors, which were enhanced by the extremely large grain crops in those years. The 1928 grain crop, the largest that Canada had ever had, amounted to 1,184 million bushels of grain, but it was followed in 1929 by a crop of 715 million bushels, the smallest since 1919.[15] Then came the depression, and it goes without saying that the new branch lines of both railways have temporarily proved to be a burden rather than an asset. With the fall in the price level agriculture became increasingly unprofitable, so that settlement of new territory opened up by the recently built branch lines was held up. The management of each railway, however, is firmly convinced that a return to normal conditions will demonstrate the inherent soundness of its branch line program.

ACQUISITION OF BRANCH LINES BY PURCHASE

In the year 1929 the Canadian National acquired six branch lines (650 miles) in Eastern Canada at a cost of $18,780,309,

[15] *The Canada Year Book,* 1933, pp. 230-1. The figures include wheat, oats, barley, buckwheat, rye and flax.

and in the years 1923 to 1931 the Canadian Pacific four lines (208 miles) at a cost of $5,347,378. There was nothing in the acquisitions of the Canadian Pacific which requires comment here, but it is informative to note the following statement of the Royal Commission pertaining to the lines acquired by the Canadian National:[16]

"In explaining the 1929 acquisitions it was stated by representatives of the Canadian National Railways that the 'technical' recommendation to purchase came from the Canadian National management but that, with regard to some of them, it was recognized that they were not of advantage from a strictly railway point of view. All of them were, however, in a territory served by the Canadian Government Railways and were natural adjuncts to that system. It was also stated that the service on these short lines under private ownership had been, for the most part, unsatisfactory, and that this led to a strong public demand that the Government should take over the railways. This agitation finally resulted in the lines being taken over, although it was admitted that the condition of these roads and their earning power were such that they must be a burden on the railway system. The recommendation of the management is understandable under the circumstances, but the commission believes that it would have been better had the Government assumed this burden directly and thus avoided saddling the railways with capital charges and operating expenses resulting from the purchase of railways based solely on a public policy."

The opinion expressed by the Commission that "it would have been better had the Government assumed this burden directly" may be misunderstood. The Government under the Maritime Freight Rates Act pays the deficits on Eastern Lines in cash, and as four out of six lines are in the Maritime Provinces, the Government has assumed the burden in respect to them.

[16]Duff Commission Report, pp. 22-3.

MONTREAL TERMINAL DEVELOPMENT OF THE CANADIAN NATIONAL

To co-ordinate its terminal facilities in the city of Montreal and to solve a grade-crossing problem of serious proportions, the Canadian National obtained the approval of Parliament in 1929 for the expenditure of $51,409,000 on a vast terminal project. By the end of 1931 the railway had spent $14,636,877, when further work on the development was halted. The following brief discussion of the project is based on a study of a lengthy memorandum prepared by the Canadian National Railways for the recent Royal Commission and upon numerous interviews with officials of both railways.

As described by the Canadian National, the project was devised to unify existing disjointed freight and passenger terminal facilities in the city of Montreal, and was the last major item in "fusing the previously existing companies into a coherent whole." Prior to 1927, according to the Canadian National, "the estimates of the cost of effecting this co-ordination showed the expense to be so considerable as to be unwarranted in the light of existing traffic, and had not the city of Montreal revived the demand for some treatment of the grade-crossing problem in Montreal, the present terminal scheme would probably have been deferred."

The lines of the Canadian National approach Montreal from four different directions, but on reaching the metropolitan area these lines fail to meet in a unified terminal. At present all lines from the south of the St. Lawrence River enter Montreal via the Victoria Bridge, and together with the lines of the Grand Trunk on the north side of the St. Lawrence (from Toronto and Ottawa) come to a terminus, in so far as passenger trains are concerned, at the old Bonaventure station of the Grand Trunk Railway. The main line from the west, of the former Canadian Northern, enters Montreal by means of a tunnel through Mount Royal, with a passenger station in the center of the city. The terminal scheme of the Canadian National provided for a viaduct between the Montreal end of the Tunnel and Victoria Bridge, a new passenger terminal near

the present Tunnel terminal, the abandonment of Bonaventure as a passenger facility so as to provide more space for freight sheds, team tracks and warehouse development, a belt line to the north of the city to afford a direct link connecting its lines in the east section of the city with the west, additional yard and shop facilities, power plant and electric equipment and the elimination of numerous grade crossings.

When the Canadian National proposed its plan in the fall of 1927, it was subjected to a great amount of criticism. In particular the Canadian Pacific opposed it as a highly competitive scheme through which the Canadian National hoped to rival its favorably situated passenger terminal at Windsor Street. The Canadian Pacific contended that a suitable joint terminal could be provided at Windsor Station for a moderate expenditure, after which all passenger business of Bonaventure and Windsor Street Stations could be handled at Windsor Street Station, with maximum advantage to the travelling public and with great economy to the railways. The Canadian National, for various reasons to be discussed shortly, was opposed to the suggestion of the Canadian Pacific. Other plans were advanced by outside interests, and in view of the controversial aspects of the question, the Government engaged the services of an English engineer, Sir Frederick Palmer, to report on the problem. His report substantially approved of the project proposed by the Canadian National and of its necessity, and advanced arguments to show that the selection of Windsor Station as a union terminal would fail to solve the general terminal problem in Montreal. Finally, in the 1929 session of Parliament the Government authorized the Canadian National project partly on the strength of the Palmer report, and of figures showing large economies, the major portion of which rested on the future growth of traffic and revenues from prospective air rights. After expenditures of \$14,636,877 (\$8,654,903 were for land) construction was suspended in October, 1931, but there were still commitments (largely for land) for approximately \$3,000,000. In its memorandum for the Royal Commission, the Canadian National suggested certain modifications of its plan involving a

temporary tunnel terminal and the omission of less essential elements (including the belt line) which would require a further expenditure of $7,177,500, makng a total cost of $22,000,000 for the modified development.

The principal arguments advanced by the Canadian National against using the Windsor Station of the Canadian Pacific were as follows:

(1) that it would require a very considerable expense for connections, facilities and the enlargement of Windsor Street Station to handle the combined traffic of the two railways;

(2) that it would not solve the general terminal problem of the Canadian National; and

(3) that the use of Windsor Station would harm the interests of the Canadian National, since it would be difficult for people to forget that Windsor Station was the main terminal and head office of the Canadian Pacific.

It is beyond the scope of this section to weigh the merits of these claims. However, it must be evident that it would have been to the advantage of the Canadian National, with its existing huge burden of debt, if it had co-operated with the Canadian Pacific and, by modest expenditure shared by the two railways, had avoided a heavy competitive expenditure estimated at $51,000,000 when completed. Joint terminals are not unusual in Canada and may be found at Halifax, Saint John and Ottawa, where the Canadian Pacific uses property owned by the Canadian National, at Toronto, where a union station has been built on property formerly owned by the Canadian National, and at Quebec and Regina, where the Canadian National uses property owned by the Canadian Pacific.[17]

Additions and Betterments to Roadway 1923-31

The Canadian National spent $149,943,098 and the Canadian Pacific $84,235,732 for additions and betterments to roadway in the years 1923 to 1931. On each railway, this was

[17]It is noteworthy that no hearing was ever held wherein all sides could be publicly heard on the question, and no opportunity was accorded the Board of Railway Commissioners to render a judicial decision under such circumstances.

the largest single item of capital expenditure, amounting to 38.0 per cent of the total capital expenditure for rail and water lines on the Canadian National and 38.2 per cent on the Canadian Pacific. It constituted an increased investment of $6,562 per average mile of railway in the case of the Canadian National, and $5,389 per mile on the Canadian Pacific; thus the Canadian National spent $1,173 more per mile for roadway improvements than its competitor.[18]

The following table gives a classification of the principal items of improvement in the roadway and structures of the two systems. It is presented, however, with certain reservations, since there are possibilities of overlapping in some of the items, and care was not taken when the figures were requested for use by the Royal Commission to ensure that one railway

CLASSIFICATION OF EXPENDITURES FOR ADDITIONS AND BETTERMENTS TO ROADWAY 1923-1931[19]

	Canadian National	*Canadian Pacific*
Terminals (except C.N. Montreal Development)	$ 18,113,670	$ 19,383,883
Line diversions and revisions	9,602,572	1,020,892
Double tracking	1,094,101	1,877,535
Tunnels	....	1,243,131
Rails and fastenings	10,289,773	16,633,773
Tie plates and rail anchors	12,370,799	3,964,952
Ballast	6,346,155	4,296,672
Yards, tracks and sidings	14,222,680	4,983,513
Bridges, culverts, trestles	16,018,834	7,161,163
Station and station facilities	7,916,191	3,925,699
Water supply	1,971,531	1,542,496
Shops, engine houses, machinery	10,098,059	5,802,887
Docks and wharves	2,503,242	....
Signals and interlockers	2,376,575	3,230,174
Other roadway—widening rock cuts, ditching, drainage, etc., crossing protection (C.N.R.—$10,001,865), etc.	24,684,520	4,538,658
Separately operated properties	4,902,589	4,630,304
Central Vermont	7,431,807	....
Total	$149,943,098	$84,235,732

[18]The average operated mileage of the Canadian National during the nine-year period was 22,850 miles. This included the Central Vermont Railway, since its expenditures for additions and betterments to roadway were included in the total for the System. The average operated mileage of the Canadian Pacific Railway System was 15,631 miles.

[19]*Report for the Royal Commission on Railways and Transportation,* prepared by George H. Parker, June 1932, Vol. 1, pp. 59-60. Hereafter this reference will be called the Parker Report.

would classify its expenditures uniformly with the other. For example, there are a number of captions involving expenditures for rails, namely, terminals, line diversions, double tracking, yards, tracks and sidings and finally rails and fastenings. Yet, even allowing for a difference in the method of classifying such an item as rails, it is informative to compare those items in which there was little likelihood of a difference in grouping as between the two railways.

The difference in the character of the improvements on the two properties is strikingly shown by the foregoing figures. For such capital items as line diversions and revisions, yards, tracks and sidings (allowing for the possible inclusion of rails in the figures for the Canadian National and exclusion of rails in the Canadian Pacific figures), bridges, culverts and trestles, shops and engine houses, stations and station facilities, the Canadian National spent many millions of dollars more than the Canadian Pacific. All of these classes of expense, together with the item, other roadway, reflect the cost to the Canadian National of bringing its lines to a higher standard. However, since the capital improvements on both properties entailed increased interest charges, it is important to bear in mind the difference in the net earnings of the two railways, because the propriety or otherwise of added commitments depends on that test.

It is difficult to determine whether one railway got more for its money than the other, or whether either or both railways had a more liberal program than was economically justified. As previously indicated, the measure of economic justification is the ability to earn an appropriate rate of return on the new capital investments. In regard to the expenditures of the Canadian National for capital improvements, the recent Royal Commission expressed its views as follows:[20]

"The introduction of new capital in so large a volume, with every dollar carrying liability for interest from the moment it was expended, would have caused in itself a difficult financial position for the [National] railway, even if there had been no depression in business."

[20]Duff Commission Report, p. 61.

As for the Canadian Pacific, the circumstances differed in several respects. Throughout the period, it raised new capital on its own credit. Ample reserves and accumulated surpluses made it unnecessary to raise all of the new capital invested by the sale of securities. Of the securities issued, the proceeds of the sale of capital stock exceeded the proceeds of interest-bearing securities. After the decline in business set in, the earnings of the Canadian Pacific continued to exceed fixed charges, although no control was possible over the mounting interest requirements of the Canadian National in the face of declining earnings. Finally, it is worthy of note that the Canadian Pacific has held that in the protection of its interests it had no other recourse than to meet the aggressive rivalry of the Canadian National.

Undoubtedly the result of the capital improvements was faster and smoother service for the travelling public, although the cost of developing two first-class railways to compete with each other was unquestionably vastly greater than the cost of improving a single unified property would have been. This is but one of the costs of attempting to maintain competitive railway service under the prevailing density of traffic in Canada.

Rolling Stock Expenditures 1923-1931

In the nine-year period both railways, but particularly the Canadian National, spent money liberally for new equipment and for the rehabilitation of old units. The table on the following page gives a classification of these expenditures. It will be noted that the expenditures of the Canadian National for new locomotives were more than double those of the Canadian Pacific. A comparison of locomotives owned, average tractive power and aggregate tractive power, at the beginning and end of the period was given in Chapter VIII, page 140, where it was shown that the Canadian National had 39.2 per cent more locomotives than the Canadian Pacific on December 31, 1922, while its excess over the Canadian Pacific on December 31, 1931, was 45.3 per cent. The change in the relative position was greater when expressed in terms of aggregate tractive power, for in this respect the Canadian National

had an excess of 45.7 per cent in 1922 which increased to an excess of 61.3 per cent in 1931.

CAPITAL EXPENDITURES FOR EQUIPMENT, 1923-31[21]

	Canadian National	*Canadian Pacific*
Gross expenditure—new units:		
Locomotives	$ 34,480,066	$ 14,592,226
Freight cars	80,470,939	53,556,335
Passenger cars	28,013,107	32,922,815
Work equipment	4,234,156	5,321,235
Miscellaneous equipment	479,332	----------
Total new units	147,677,600	106,392,611
Additions and betterments	18,459,934	15,513,337
Total gross expenditures	166,137,534	121,905,948
Less retirement allowance	33,142,713	55,941,938
Total (charged to capital expenditure)	132,994,821	65,964,010

The policy of the Canadian National respecting heavier power equipment may be questioned. On account of the low traffic density on Canadian lines, the Canadian Pacific has not attempted to use heavy power equipment to the same extent as has become customary in the United States. The reason is that heavy locomotives are economical only if traffic conditions are such that trains may be loaded to potential capacity. When all of the factors are taken into consideration, the capital costs of heavier locomotives, the cost of heavier rail and stronger bridges in relation to the savings in the cost of train operation directly attributable to the heavier equipment, it is difficult to avoid the conclusion that the policy of the Canadian National was at least doubtful. Detailed study of all the factors would be necessary before one could feel justified in characterizing the policy as economically unsound.

The expenditures of the Canadian National for new freight cars were also greater than those of the Canadian Pacific. A comparison of freight cars owned, average capacity and aggregate capacity at the beginning and end of the period follows:

[21] Parker Report, p. 60.

INVENTORIES OF FREIGHT CARS, DECEMBER 31, 1922, AND DECEMBER 31, 1931[22]

	Canadian National	*Canadian Pacific*	*Excess Can. Nat. over Can. Pac.*
Dec. 31, 1922			
Freight cars owned	124,648	92,716	34.4%
Average capacity (tons)	35.0	37.1	—5.7%
Aggregate capacity (tons)	4,362,680	3,439,764	26.8%
Dec. 31, 1931			
Freight cars owned	125,959	89,406	40.9%
Average capacity (tons)	38.4	40.8	—5.9%
Aggregate capacity (tons)	4,836,826	3,647,765	32.6%

It will be noted that the excess number of cars owned by the Canadian National over the Canadian Pacific increased from 34.4 per cent to 40.9 per cent, and the excess in aggregate capacity from 26.8 per cent to 32.6 per cent. The average excess of freight ton mileage on the Canadian National over the Canadian Pacific was 28.8 per cent. During the period the Canadian National was predominantly a debtor road in respect to hire of equipment, while the Canadian Pacific had a substantial net credit for freight car hire. Therefore, if the ton mileage of each railway were adjusted to include only that made by its own freight cars, the excess freight car inventory of the Canadian National would show up more sharply.

Considering the declining trend of the passenger business in the past decade the expenditure of sixty-one million dollars by the two railways for passenger cars appears to be extravagant.[23] To be sure, a good part of the expense was incurred through the necessity of replacing wooden with steel cars, yet it is also true that the extreme rivalry for business gave rise to additional service and to increased luxury of equipment that

[22]Inventory figures, *ibid.*, p. 111. Capacity calculated from data in Official Railway Equipment Register.

[23]The excess expenditure of the Canadian Pacific for passenger cars was caused by the purchase of more sleeping cars. The Canadian Pacific operates all the sleeping cars on its lines, while the Canadian National still makes use of Pullman cars in certain territories. On December 31, 1931, the Canadian Pacific owned 754 sleeping and tourist cars as compared with 349 owned by the Canadian National; this was an increase of 336 cars for the Canadian Pacific and 131 for the Canadian National from December 31, 1922.

could well have been avoided. In this connection it is informative to read the following testimony of the Vice-President of Western Lines of the Canadian Pacific to the recent Royal Commission: [24]

"When the Grand Trunk Pacific and the Canadian Northern were merged the service they were rendering in western Canada was undoubtedly inferior in quality to that furnished by the Canadian Pacific. An improvement was to be expected and was long over-due to the people whom those railways had attempted to serve. Train schedules were improved, obsolete passenger train equipment was replaced, a more adequate car supply was arranged for shippers of freight, and transportation conditions in their territory were generally made more tolerable. If that regenerative process meant the loss of some traffic to the Canadian Pacific, I do not feel that we had any ground for complaint, but unfortunately in our opinion it was followed by excesses. Unnecessary trains were added, freight train schedules between competitive points were accelerated to an unprofitable degree, unnecessary luxuries in the way of train equipment and service were introduced, and an effort was made to duplicate or to surpass every facility supplied by the Canadian Pacific, whether or not it fitted into the necessities of the Canadian National."

The claim has been made at various times by the Canadian National that the condition and character of its equipment in 1922 necessitated wholesale scrapping and a large capital outlay. This point of view was expressed by one official in the following words:[25]

"Nearly all freight cars were of wooden construction, a type unfitted for movement in long trains, and considered so obsolete as to be denied interchange privileges subsequent to January 1, 1931. The problem was solved partly by equipping the better wooden cars with metal draft arms, and partly

[24]Proceedings of the Royal Commission on Railways and Transportation, 1932, Vol. V, p. 181.

[25]Canadian National Railways Magazine, May 1931, Fairweather, S. W., *A Decade of Development*. There is some doubt as to the period covered by the quoted statement inasmuch as the article as a whole dealt with the ten years from 1920, rather than the nine-year period 1923-1931.

by a vigorous policy of scrapping the older types. Since 1922 [to the end of 1930] a total of 49,255 cars were equipped with improved draft gear, and 27,855 cars were retired. Placed end to end the scrapped freight car equipment would make a train 240 miles long. Only by such drastic action could the situation be dealt with, for delay would have created a condition where the transportation machine would have broken down completely. New freight cars were purchased of a type suitable for heavy train movement, and of much greater usefulness than the scrapped equipment. It was by such means that the peak freight movement of 1928—39 per cent above that of 1920—was handled without a car shortage and with 3 per cent fewer cars. . . .

"Locomotives, too, required a thorough program of renovation. . . . The locomotive equipment of the system in 1920 consisted of 3,316 engines; the average locomotive could exert a pull of 32,500 pounds. In 1930 the equipment consisted of 3,096 engines; the average unit could exert a pull of 38,500 pounds. This statement tells in brief the story of the rehabilitation program. Since 1922, 655 locomotives, 10 miles of them, were scrapped at a cost chargeable to operation of $7,288,886; 483 new locomotives were purchased at a capital cost of $31,714,537; and $4,948,276 was expended upon improvements to existing locomotives."

It should be noted, however, that this description does not agree with statements made in the annual reports at the beginning of the period. According to the 1921 report:[26] "The physical property of the railways which, due to the war, was in an exhausted condition, has been improved, many facilities have been added, proper rolling stock and motive power have been provided." The 1923 report expressed the same opinion:[27] "The general condition of equipment on the Canadian National Railways was (in 1923) comparable with the better class railways across the border . . ."

The provision for retirements, which is a credit item in the investment account, was $33,143,000 for the Canadian National-

[26]Canadian National Railways, *Annual Report*, 1921, pp. 19-20.
[27]*Loc. cit.*, 1923, p. 6.

tional and $55,942,000 for the Canadian Pacific, an excess during the period for the Canadian Pacific of 69 per cent. When consideration is given tc the number of units of equipment owned by the two railways, this difference becomes even more marked. At the end of 1931, the Canadian Pacific had 31 per cent fewer locomotives than the Canadian National, 15 per cent fewer passenger cars and 29 per cent fewer freight cars. Using the Canadian Pacific retirement charges as a yardstick, it would appear that, irrespective of the number of units retired, the Canadian National provision in this respect was quite inadequate. As explained previously, the retirement charges of the Canadian Pacific were the equivalent of a 3 per cent depreciation rate on the value of its equipment, while the retirement charges of the Canadian National were the equivalent of a 1¼ per cent depreciation rate. This signifies not only that the operating expenses of the Canadian National were understated in the period 1923 to 1931 by approximately $46,000,000,[28] but also that its retirement charges in the future will be extremely burdensome if they properly account for current depreciation in addition to providing for the deficiencies in the retirement charges of the past.

Lake and River Services

The expenditures of the Canadian National in these services ($4,599,294) represented the net cost of eleven new units of floating equipment for Lake Michigan and Prince Edward Island ferry services after the retirement of two units. The Canadian National also began a boat service on Okanagan Lake (British Columbia) in 1925, in competition with the Canadian Pacific which for many years has maintained a freight and passenger service to all points on the lake.

During the same period the Canadian Pacific maintained its fleet of steamers on the Great Lakes and in British Columbia in suitable condition for the traffic, with net expenditures of $178,254. Ten new units were added and twenty-one retired.

[28] Parker Report, p. 75.

Railways Jointly Owned by the Two Systems

The jointly-owned properties are the Toronto Terminals Railway and the Northern Alberta Railways, in which the Canadian National and the Canadian Pacific each have a half interest. The investment during the period was $17,935,558 for the Canadian National and $16,559,800 for the Canadian Pacific. The difference between the two figures is represented by some land owned by the Canadian National which will ultimately be acquired by the Terminals Company.

The Northern Alberta Railways (794 miles), extending northward from Edmonton into the Peace River country, were formerly owned by the Province of Alberta. The properties were jointly acquired by the Canadian Pacific and the Canadian National in 1928 to avoid wasteful duplication of lines, which would undoubtedly have taken place if one system or the other had independently purchased them.

Coastal Steamship Services

The Canadian National was rightly criticized by the recent Royal Commission for expanding its Pacific coastal services during the period under review. The National system inherited from the Grand Trunk Pacific a steamship service between Vancouver and Prince Rupert, with additional sailings to Alaska during the summer months. The steamship line, consisting of four boats representing an investment of $1,480,000, was continued by the Canadian National. Its net operating revenues had always been negligible, and after deducting interest and depreciation, the average net loss up to 1930 was about $200,000 a year. The service was an essential one, however, and could not well be abandoned. However, in 1928 the Canadian National decided upon a policy of expansion involving four new boats, two of which were to be operated on the Tri-City route, Vancouver-Victoria-Seattle, in competition with the Canadian Pacific. The Grand Trunk Pacific for a time had operated a service between Vancouver, Victoria and Seattle in competition with the Canadian Pacific, but the service was abandoned when the Grand Trunk Pacific

failed, and it was not renewed by the Canadian National. Consequently the Canadian Pacific had been left alone in the field, and with a fine fleet of steamers it was giving excellent service and making a good profit. In the years 1923-1931, it increased its investment in its Pacific coastal service by $5,163,000, compared with $7,201,000 for the Canadian National. There was an interesting contrast in the type of vessel acquired by each company which is reflected in the cost figures shown in the following table:

Capital Expenditures 1923-31

Pacific Coast Steamship Services[29]

(Showing year in which new vessels were purchased)

Canadian National			*Canadian Pacific*		
Prince Henry	(1930)	$2,160,347	*Princess Louise*	(1921)	$1,400,000
Prince David	(1930)	2,140,868	*Princess Kathleen*	(1925)	1,280,866
Prince Robert	(1930)	2,193,375	*Princess Marguerite*	(1925)	1,258,889
			Princess Elaine	(1928)	639,539
Other		972,880	*Princess Norah*	(1929)	633,559
Retirements Cr.		266,353	*Princess Elizabeth*	(1930)	1,128,944
			Princess Joan	(1930)	1,127,324
			Other		1,260,756
			Retirements Cr.		3,567,313
		$7,201,117			$5,162,564

Bay of Fundy Service[30]

Princess Helene	(1930)	$1,176,738

The Canadian National inaugurated its Tri-City service in August 1930 after the Canadian Pacific had completed its present fleet. The two largest vessels of the Canadian Pacific, *Princess Kathleen* and *Marguerite,* were added in 1925 and replaced other vessels which had been in the service for many years. It will be noted that Canadian Pacific expenditures included the deferred payment on the *Princess Louise* which was purchased prior to the nine-year period 1923-1931. The Canadian National after thirteen months of operation with-

[29] Duff Commission Report, p. 26.

[30] The Canadian Pacific also operates a coastal service in the Bay of Fundy between St. John, New Brunswick, and Digby, Nova Scotia. During the period the vessel in service was replaced by a new one, the *Princess Helene,* at a cost of $1,176,738.

drew from the Pacific Service, having experienced a heavy operating loss.

As shown by the Royal Commission, the three large vessels of the Canadian National were constructed at a cost which exceeded the estimates by $1,500,000. In the words of the Commission, "the desire for increased speed and luxurious equipment beyond that provided by their competitor, the Canadian Pacific Railway, explains not only this increase, but also the fact that the approximate cost of each vessel exceeded the average cost of the Canadian Pacific vessels by roundly $900,000."[31]

Considering the fact that the Canadian Pacific was rendering a very satisfactory service on the Tri-City route, that the Canadian National was already losing money on its Prince Rupert service, and that its attempt to break into the Tri-City route proved disastrous from an operating standpoint, it is clear that we have here an example of unsound competition of a sort which should never be permitted to return. In the words of the Royal Commission, "it is impossible to believe that any public interest was served by this duplication of coastal services. Any success that might have come to the Canadian National could only have been largely at the expense of the Canadian Pacific."[32] The policy of the Canadian National can be partially explained (though not justified) by the fact that it suffered some disadvantage in not having a steamship service of its own.

Hotels and Resorts

At the end of 1922 the Canadian Pacific had an investment of $24,000,000 in hotels and resorts, which were an important part of its extensive passenger travel service. In the following nine years it increased that investment by the sizeable amount of $46,888,000. Of this $19,000,000 were for new hotels in Toronto and Regina, $22,000,000 were for reconstruction, fireproofing and enlargement of existing hotels and

[31]Duff Commission Report, *loc. cit.*
[32]*Ibid.*, p. 27.

camps, and $5,500,000 for an hotel site in London, England. The Canadian National inherited an hotel system consisting of five hotels and three summer resorts, representing an investment of $9,674,000. Construction of new hotels and two summer resorts, as well as betterments to existing structures, added $22,154,000 to what had been but a nucleus of an hotel system. The following statements give the details of the investment of each railway in hotels at the beginning and end of the period under review:[33]

HOTEL INVESTMENT ACCOUNT—CANADIAN NATIONAL RAILWAYS

	As of December 31 1922	1931	*Increase during Period*
Charlottetown, Charlottetown, P.E.I.	$........	$ 853,351	$ 853,351
Pictou Lodge, Pictou, N.S.	....	200,554	200,554
Nova Scotian, Halifax, N.S.	....	2,440,928	2,440,928
Chateau Laurier, Ottawa, Ont.	2,608,636	8,639,247	6,030,611
Highland Inn and Camps, Algonquin Park, Ont.	179,515	173,334	—6,181
Minaki Lodge, Minaki, Ont.	....	1,090,668	1,090,668
Nipigon Lodge, Lake Nipigon, Ont.	24,086	37,639	13,553
Prince Arthur, Port Arthur, Ont.	1,098,090	1,177,349	79,259
Prince Edward, Brandon, Man.	499,472	523,080	23,608
Fort Garry, Winnipeg, Man.	2,754,004	2,886,818	132,814
Grand Beach, Lake Winnipeg, Man.	300,025	418,722	118,697
Macdonald, Edmonton, Alta.	2,155,414	2,226,060	70,646
Jasper Park Lodge, Jasper, Alta.	55,168	2,576,744	2,521,576
Under Construction			
Vancouver, Vancouver, B.C.	....	5,958,812	5,958,812
Bessborough, Saskatoon, Sask.	....	2,624,928	2,624,928
Totals	$9,674,410	$31,828,234	$22,153,824

The hotels of the Canadian Pacific for the nine years showed an operating profit of $7,469,000, before the deduction of interest and depreciation. After these deductions the results would show a substantial loss. The hotels of the Canadian National failed even to earn an operating profit, showing an operating loss of $2,131,000 for the period. This loss would be substantially increased if interest and depreciation were

[33]*Ibid.*, pp. 23-25.

Hotel Investment Account—Canadian Pacific Railway*

	As of December 31 1922	1931	Increase during Period
Algonquin, St. Andrews, N.B.	$1,257,780	$ 1,424,033	$ 166,253
Banff Springs, Banff, Alta.	2,741,763	8,844,372	6,102,609
Chateau, Lake Louise, Alta.	1,645,934	3,413,804	1,767,870
Chateau Frontenac, Quebec, Que.	4,085,216	8,871,703	4,786,487
Cornwallis Inn, Kentville, N.S.	**	744,559	744,559
Empress, Victoria, B.C.	1,592,017	5,512,396	3,920,379
Palliser, Calgary, Alta.	2,790,984	4,615,502	1,824,518
Pines, Digby, N.S.	**	940,081	940,081
Place Viger, Montreal, Que.	918,079	951,486	33,407
Royal Alexandra, Winnipeg, Man.	2,857,759	3,213,745	355,986
Royal York, Toronto, Ont.	———	16,482,313	16,482,313
Saskatchewan, Regina, Sask.	———	2,559,918	2,559,918
Vancouver, Vancouver, B.C.	5,052,079	6,337,412	1,285,333
Crystal Garden, Victoria, B.C.	284,322	284,322	———
Camps and Rests	69,417	605,736	536,319
London, England	———	5,478,058	5,478,058
Miscellaneous	965,423	869,332	—96,091
Totals	$24,260,773	$71,148,772	$46,887,999
Grand Total C. N. and C. P.	$33,935,183	$102,977,006	$69,041,823

*Investments of the Canadian Pacific in hotels and resorts which it does not own completely are excluded.

**The investment in these hotels on December 31, 1922, was carried in Dominion Atlantic Railway accounts, a subsidiary of the Canadian Pacific.

included. The hotel earnings and expenses by years are given herewith:

Operating Results—Canadian National Hotels

	Revenues	Expenses including taxes	Operating loss
1923	$1,790,969	$1,953,689	$ 162,720
1924	1,795,279	2,093,218	297,939
1925	2,005,935	2,082,301	76,366
1926	2,301,547	2,340,316	38,769
1927	2,586,024	2,599,146	13,122
1928	2,583,990	2,719,046	135,056
1929	2,989,013	4,077,587	1,088,574
1930	3,166,972	3,292,040	125,068
1931	2,951,630	3,144,940	193,310
	$22,171,359	$24,302,283	$2,130,924

Operating Results—Canadian Pacific Hotels*

	Revenues	Expenses including taxes	Operating profit
1923	$ 4,910,068	$ 4,302,891	$ 607,177
1924	5,100,341	4,556,110	544,231
1925	5,805,931	4,949,532	856,399
1926	6,135,343	5,139,341	996,002
1927	6,663,988	5,846,420	817,568
1928	7,354,118	6,385,018	969,100
1929	10,120,642	8,471,618	1,649,024
1930	9,646,557	8,926,931	719,626
1931	7,375,841	7,066,141	309,700
Totals	$63,112,829	$55,644,002	$7,468,827

*Hotels and resorts which the Canadian Pacific does not own completely are excluded.

With two exceptions, there was no duplication of hotel construction in the nine years. The duplication occurred at Halifax and Vancouver and the circumstances are of interest. Two modern hotels were constructed in Halifax, one a terminal hotel built by the Canadian National at a cost of nearly $2,-500,000, which was twice the amount of the original estimates, and the other, the Lord Nelson Hotel in which the Canadian Pacific has a financial interest.[34] As brought out in the annual reports of both companies for the year 1927, the entire reason for the duplication of hotels at Halifax was political interference with the management of the Canadian National Railways. Preliminary negotiations were carried on by both railways in 1926 with a view to their joint subscription of the preferred stock of the Lord Nelson Hotel, which was a private, local project.[35] On July 14, 1927 the Dominion Cabinet deemed the investment of $250,000 by the Canadian National Railway in a private hotel company of such national importance that it was considered at a meeting of the Cabinet, and rejected in favor of a new Canadian National hotel at Halifax. It is perhaps significant that the announcement was made by a member of the Cabinet whose constituency was in Nova Scotia.

[34]The financial commitment for hotels in Halifax at the end of 1931 was stated in the Royal Commission Report to be $350,000 for the Canadian Pacific and $2,440,928 for the Canadian National.

[35]The proposal was for the Canadian Pacific to subscribe $100,000 and the Canadian National, $250,000.

In the annual report of the Canadian Pacific for 1927 full details of the situation are given and the following excerpt is informative: "Your Directors deplore this duplication as entirely without justification, and are continuing negotiations with the National system in the hope that a way may be found of avoiding it." This attitude may be contrasted with the following from the annual report of the Canadian National for 1927: "Authority is asked in the Railway Estimates for the expenditure of $1,250,000. The Board believes that it has acted with wisdom and has followed that course which was essential for the protection of the interests of the National Railways." This, despite the fact that the recent Royal Commission reported that one new hotel in Halifax "would have been ample for the requirements of the public."

In Vancouver, where the Canadian Pacific for years has had a well-known hotel representing an investment of more than $6,000,000, the Canadian National have under construction an immense hotel of 600 rooms, which stands almost opposite the Canadian Pacific hotel, and is a landmark on the horizon for miles around. In Vancouver it is generally and appropriately called a "white elephant." A partial defense of the duplication, although by no means a justification of the size and huge cost ($11,000,000 when completed) of the property, was the fact that the Canadian National inherited from the Canadian Northern an old contractual obligation with the city of Vancouver to construct a hotel in that city. After prolonged negotiations, in which the city pressed its claims upon the railway company, an agreement was reached whereby the railway was relieved of certain other unfilled obligations with respect to its terminal, in consideration for the construction of a modern hotel of not less than 500 rooms.[36] In normal times there is enough tourist business through Vancouver to have warranted another first-class hotel of moderate size. Unfortunately, however, the tremendous cost of the Canadian

[36]The original agreement with the City of Vancouver was dated February 5, 1913, and simply called for a first-class modern hotel. When a new agreement was signed in 1927, the Canadian National agreed to build a much larger hotel (500 rooms) than had originally been contemplated. It appears therefore that there was something more involved than a reluctant compliance by the Canadian National with an old obligation.

National hotel will prevent it from ever proving to be an economic investment and both companies will suffer thereby.

Many years ago the Canadian Pacific initiated the policy in Canada of a chain of railway-owned hotels and summer resorts to stimulate its passenger service. It soon earned a reputation among travellers for the fine appointments of its hotels. Undoubtedly they have been a great attraction for the tourist business, which is of considerable value both to the railways and to the country at large. To a considerable extent they account for the fact that passenger traffic has not suffered nearly to the same extent in Canada as it has in the United States. Yet despite these advantages, it is clear that the railways have developed their hotel systems too elaborately and too extensively. Competition between the railways has led to an over-emphasis upon quality of service, which partly explains why the investments in hotels are largely unremunerative.

THE EFFECT OF CAPITAL EXPENDITURES FOR THE PERIOD 1923-31 ON THE ASSETS AND LIABILITIES OF EACH RAILWAY*

During this period the Canadian National increased its total assets by $452,325,052. The details of the increase in assets were as follows:

Canadian National Railways

Increase in Assets 1923-31

Property investment (including rolling stock)	$390,314,679
Hotels	22,153,824
Coastal steamships	7,201,117
Investments in controlled and affiliated companies	36,675,835
Sinking and insurance funds	24,169,960
	$480,515,415
Less decrease in current assets, deferred assets and unadjusted debit accounts	28,190,363
	$452,325,052

*Treatment of the complicated financial structure of the Canadian National and the problems connected therewith is reserved for a subsequent chapter.

This increase was accompanied by an expansion of liabilities

amounting to the huge sum of $922,430,755, the details of which follow:

CANADIAN NATIONAL RAILWAYS

INCREASE IN LIABILITIES 1923-31[37]

Funded Debt due public		$471,954,063
Government Loans		132,468,521
Government appropriations account Canadian Government Railways		5,729,299
Government assumption of Canadian National Railways Eastern Lines deficits		26,861,713
Accrued unpaid interest on Government Loans		287,663,169
		$924,676,765
Less reductions in reserves and current liabilities		2,246,010
		$922,430,755

The difference between the increase in the assets and the increase in the liabilities, amounting to $470,105,703, is accounted for chiefly by deficits; the details follow:

Excess of interest due public over net income	$168,052,757	
Interest on Government loans	287,663,169	
		$455,715,926
Unamortized discount on funded debt		14,389,777
		$470,105,703

Average Annual System Deficit:

Excluding Interest due Government	$18,672,528
Including Interest due Government	50,635,103

It will be seen that the Canadian National increased its funded debt outstanding in the hands of the public by $471,-954,063 which, after allowing for discount, amounted to slightly more than the aggregate capital expenditures for the period. This had the effect of increasing the annual interest on funded debt due the public from $34,652,324 in 1922 to $55,587,145 in 1931. Moreover, since part of the increased funded debt was issued in September 1931, the full effect of the larger burden of interest was not felt until 1932, when the annual interest amounted to $56,965,279.

In addition, there is the annual accrual of interest, amounting to $35,525,540 in 1932, on Government advances to the

[37]Duff Commission Report, p. 27. Strictly speaking, the increase in liabilities on the books of the system amounted to $893,097,452 and the increase in the accumulated deficit was $426,382,623, since the Eastern Lines deficits were assumed by the Government as provided in the Maritime Freight Rates Act of 1927.

system. Thus the total interest burden of the Canadian National now amounts to more than $92,000,000 per year. Even if the Government made an adjustment of the System's government loan account and thereby wiped out a part or all of the annual accrual of interest on government loans, the problem of meeting the fixed charges of the system would still remain. Assuming that business soon returns to normal in Canada and that the Canadian National with increased traffic can achieve an operating ratio of about 80 per cent, the system will have to have gross revenues of more than $315,000,000 before it will succeed in earning enough to pay interest on its outstanding debt in the hands of the public.[38] In this respect it is significant to note the following figures of gross railway operating revenues of the Canadian National Railways (all-inclusive system):

ANNUAL RAILWAY OPERATING REVENUES

CANADIAN NATIONAL RAILWAYS*

1928	$312,286,000
1933	148,519,000
10-year average 1924-33	244,167,000

*Includes Central Vermont throughout.

Both 1928 and 1933 were abnormal years and it is reasonable to expect that, with a return to more normal conditions, the average revenues of the system over the next ten years will be closer to the average for the past ten years than to the revenues for 1928 or 1933. On that basis it will never be possible for the net earnings of the Canadian National to overtake the increasing burden of fixed charges. There is no magic method, short of repudiation, by which the steady accumulation of compound interest can be held in abeyance until the traffic of the Canadian National shall have increased sufficiently to enable it to meet its fixed charges out of its own net earnings. Consequently, if competitive railway service is continued, there is no doubt that the next ten years will witness

[38]Tax accruals amounting to about $6,000,000 were added to the interest charges in making the computation, and it was optimistically assumed that miscellaneous income would about balance miscellaneous expense.

a repetition of the Canadian National deficits of the past ten years. In fact, under present arrangements, it is hopeless to expect that the Government will ever obtain any cash return on its tremendous investment in the Canadian National System.

During the nine years the Canadian Pacific Railway Company increased its total assets by $253,447,438, and its liabilities by $266,819,039. The difference is accounted for by a reduction in surplus, amounting to $13,371,601. The following statement shows the asset and liability changes in detail:

Canadian Pacific Railway Company

Increase in Assets 1923-31[39]

Property investment, including rolling stock, lake and river steamers	$215,571,038
Hotels	46,887,999
Ocean and coastal steamships	56,610,641
Acquired securities	48,982,529
	$368,052,207
Less decrease in other assets, including advances to controlled companies, investments and available resources in current accounts	114,604,769
Net increase in assets	$253,447,438

Increase in Liabilities 1923-31

Ordinary capital stock	$ 75,000,000
Preferred capital stock	56,575,000
Increase in funded debt	151,824,772
	$283,399,772
Increase in premium on capital stock less discount on bonds and notes	22,276,695
	$305,676,467
Less decrease in reserves, and current accounts	38,857,428
	$266,819,039
Less reduction in surplus	13,371,601
Net increase in liabilities	$253,447,438

Due to the increase in funded debt, the fixed charges of the Canadian Pacific including rentals for leased roads, increased from $13,348,906 in 1922 to $22,050,364 in 1931. For the

[39]Parker Report, pp. 29-30. Also Duff Commission Report, p. 28.

year 1932 they amounted to $23,619,529. The preference stock dividend requirement increased from $3,227,276 in 1922 to $5,490,277 in 1932. Dividends at the rate of 10 per cent per annum were paid on the common stock from 1911 through the first quarter of 1931. Then for a year the dividend was cut in half, and finally in 1932 both preference and common stocks ceased paying dividends. If dividends had been paid in 1932 at the same rate as for the previous twenty years it would have required $62,706,806 to meet fixed charges and dividend requirements in 1932, compared with $42,576,182 in 1922. This represents a relatively fast rate of growth for a period of ten years. It may be observed, however, that the financial position of the Canadian Pacific is vastly different from that of the Canadian National, on account of the differences in their capital structures. Thus when earnings are insufficient to pay the usual return on its outstanding securities, the Canadian Pacific can secure relief by suspending or reducing its preferred and common stock dividends, whereas the Canadian National must find approximately $57,000,000 yearly for interest, irrespective of its earnings.

SUMMARY AND CONCLUSIONS

The capital expenditures of the two railways for the nine-year period may be summarized under four headings as follows:

	Canadian National	*Canadian Pacific*
1. New lines constructed or acquired	$ 92,036,879	$ 70,414,666
2. Additions and betterments to roadway (including Montreal Terminal development of the Canadian National	164,579,975	84,235,732
3. Rolling stock	132,994,821	65,964,010
4. Other expenditures (excluding ocean steamships)	66,733,781	77,891,111
Total	$456,345,456	$298,505,519

For further comparison, the expenditures for additions and betterments to roadway and rolling stock may be related to the average operated mileage of each system as follows:

Capital Expenditures per Average Mile of Road 1923-31

	*Canadian National**	*Canadian Pacific*	*Excess of C.N. over C.P.*	*Per Cent*
Additions and betterment to roadway (including Can. Nat. Montreal Terminal Development)	$7,202	$5,389	$1,813	33.6
Rolling Stock	5,820	4,220	1,600	37.9
Total	$13,022	$9,609	$3,413	35.5

*Includes Central Vermont.

In these categories it will be noted that the expenditures of the Canadian National were 35.5 per cent greater per mile of line, though the prevailing density of traffic was greater on the Canadian Pacific. Branch Line construction can not properly be related to existing mileage, and there is no tangible measure of their economies apart from the general conclusions which have already been discussed. The balance of the capital expenditures was of a miscellaneous character not properly measured by railway mileage or any other general unit. The circumstances connected with each group must supply the answer to the question whether they were wisely undertaken.

In view of the comparative expenditure of the two railways for roadway improvements and equipment during the nine-year period, it is important to note their comparative investments in road and equipment on December 31, 1931.

It will be noted that the adjusted investment in road and equipment per mile of line on the Canadian National is considerably greater than that of the Canadian Pacific; this, despite the fact that the Canadian National has a lower density of traffic and much lower net earnings per mile of line than the Canadian Pacific. It is submitted that this relationship has an important bearing on the question of the relative soundness of each railway's capital program during the nine-year period. For, while there is no question that the additional investment of both railways was excessive on the basis of any test that may be made, the Canadian Pacific was in a much

INVESTMENT IN ROAD AND EQUIPMENT

CANADIAN NATIONAL RAILWAY SYSTEM DECEMBER 31, 1931

Investment in road and equipment		$2,137,388,433
Improvement on leased railway property		3,627,302
Investment in leased railway property (Rentals of $1,326,194 capitalized at 4½%)		29,500,000
		$2,170,515,735
Deduct:—		
Canadian Northern Capital Stock	$100,000,600	
Less Value found by Auditors	18,000,000	
	$82,000,600	
Grand Trunk Ry. stock found valueless	165,627,739	
Grants in aid of construction found valueless	15,142,633	
		262,770,972
Total investment in road and equipment		$1,907,744,763
Miles of road	23,880	
Investment in road and equipment per mile	$79,889	

CANADIAN PACIFIC RAILWAY SYSTEM DECEMBER 31, 1931

Property Investment (Annual Report)	868,448,442	
Deduct Investment in Miscellaneous Property	83,894,860	
		$784,553,582
Securities of Leased and Acquired Lines owned by Canadian Pacific Railway Company	$117,303,221	
Securities of Leased and Acquired Lines owned by the public	65,329,254	
		182,632,475
Total investment in road and equipment		$967,186,057*
Miles of road	16,811	
Investment in road and equipment per mile	$57,533	

*In addition to the foregoing investment, the writer's attention has been called to the fact that in years past large sums were, in effect, written from the property investment of the company when property was acquired out of surplus earnings. If these items, formerly applied to reduce the cost of road and equipment, were now added to the investment, the investment in road and equipment as of December 31, 1931, would have been $1,096,045,623 and the average investment per mile of road $65,198.

stronger position to stand the excess than the Canadian National. There were several reasons why this was so: (1) the Canadian Pacific had larger earnings per mile of road, and a lower operating ratio than the Canadian National; (2) the

entire additional investment of the Canadian National gave rise to increased fixed charges, whereas only a part of the new investment of the Canadian Pacific resulted in larger fixed charges; (3) the investment per mile of road on the Canadian National was already greatly in excess of the investment per mile of road on the Canadian Pacific. The following figures show that capital expenditures for the nine years were higher in relation to gross railway operating revenues for the same period on the Canadian National than on the Canadian Pacific:

Capital Expenditures* per $100 Railway Operating Revenues 1923-31

Canadian National	$16.79
Canadian Pacific	12.04

Excess Canadian National over Canadian Pacific 39.45 per cent.

*Excluding additional investment in coastal services, hotels, railways jointly owned and other companies, the earnings from which were not included in Railway Operating Revenues. The figures used for the Canadian National included the Central Vermont Railway. The investment figures on this basis for the nine-year period were $402,548,889 for the Canadian National, and $226,979,669 for the Canadian Pacific; and the railway operating revenues were $2,397,645,000 for the Canadian National, and $1,885,804,000 for the Canadian Pacific.

There is a necessary and vital relationship between the rate at which the capital investment in a railway enterprise may be increased profitably and the rate of growth in the volume of its business. Over a period sufficiently long to give a satisfactory trend of the growth of traffic, it would be possible to develop comparative statistics for the two railways to show the relation between their increased capital investment and the growth of their traffic. However, the period under review was not long enough to develop a satisfactory trend of traffic, although it is apparent from an observation of the annual traffic figures (see Chapter VIII) that the passenger and freight traffic densities of the two railways had a declining trend from 1923 to 1931. To be sure, from 1923 to 1929 there was an upward trend of freight traffic, but this was principally due to the fact that 1928 was an abnormally prosperous year. Yet despite relatively little change in the traffic or earnings per mile of railway during the period (except for one

or two exceptionally good years), the Canadian National increased its investment in roadway betterments and equipment by $13,022 per mile, and the Canadian Pacific by $9,609 per mile. In addition, there were large expenditures on each railway for new lines and for miscellaneous properties.

When capital is increased too fast, the inevitable result is a lowering in the rate of return on the entire investment. This is essentially what has taken place on the two railway systems as a result of an unsound and unfair policy of competition. Both railways have been weakened financially, and the only way to repair the damage is to depart from the uneconomic policy of railway rivalry. While the follies of the past cannot be undone, duplicate expansion in the future can be avoided, the costs of railway operation can be materially reduced and correspondingly the net revenues can be increased, if the operations of the two railways are conducted on a unified basis. In Chapter XIII there is a detailed account of the substantial savings which might be secured through unified management.

CHAPTER X

FINANCIAL PROBLEMS OF THE CANADIAN NATIONAL RAILWAYS

THE most important financial problem of the Canadian National is its tremendous burden of debt in relation to the earning power of the system. On December 31, 1933, the long-term funded debt outstanding in the hands of the public was $1,255,300,000, on which the annual interest was $56,465,000.[1] The remaining capital liabilities of the Canadian National comprised the obligations of the system to the Dominion Government. These consisted of government loans to the system amounting to the huge sum of $661,833,000 on December 31, 1933, together with accrued interest of $424,338,000. The remainder of the equity of the Government in the system was the Government's investment of $404,000,000 in the Canadian Government Railways. No interest or rental has been paid or accrued in respect to this investment for any year. Mention should also be made of an outstanding capital stock item on the consolidated balance sheet amounting to $270,000,000 which requires brief explanation. At the time of its acquisition by the Dominion Government, the Grand Trunk Railway Company had outstanding capital stock to the amount of $165,628,000, and the Canadian Northern, $100,000,000. All of these shares were acquired by the Canadian Government by purchase.[2] Consequently the $270,000,000 capital stock item represents the Government's ownership of the $265,628,000 par value of stock of the Canadian Northern and the old Grand Trunk

[1]This is equivalent to an average interest rate of 4.498 per cent.

[2]The values of these stocks were determined by arbitration committees. Upon their recommendations the Government paid $10,000,000 for the Canadian Northern shares, and nothing for the Grand Trunk shares. Nevertheless, these securities are still carried on the books of the Canadian National at their par value and the asset accounts are correspondingly inflated.

Railway companies, and the remainder, \$4,586,000, represents shares of the various constituent companies in the hands of the public. The consolidated balance sheet of the Canadian National Railway System on December 31, 1933, is summarized herewith:[3]

CONSOLIDATED BALANCE SHEET OF THE CANADIAN NATIONAL RAILWAY SYSTEM, DECEMBER 31, 1933

ASSETS			
Investments			
Investment in road and equipment including improvements on leased property		\$2,138,241,000	
Miscellaneous investments		122,117,000	
			\$2,260,358,000
Current Assets			67,631,000
Deferred Assets (Insurance Fund, etc.)			19,214,000
Unadjusted Debits (Discount on Funded Debt. etc.)			18,810,000
Total Assets			2,366,013,000
LIABILITIES			
Capital Stock			
Owned by Dominion Government		\$ 265,628,000	
Owned by Public		4,586,000	
			\$270,214,000
Long-Term Funded Debt in the Hands of the Public			
Guaranteed by Dominion Government		962,993,000	
Guaranteed by Provincial Governments		72,184,000	
Equipment trust issues		65,453,000	
Other issues		154,672,000	
			1,255,302,000
Dominion of Canada Account			
Loans Advanced for capital purposes	\$337,758,000		
Advanced for deficits	324,075,000		
		661,833,000	
Interest on loans accrued but unpaid		424,338,000	
		1,086,171,000	
Dominion of Canada expenditure for the Canadian Government Railways		404,379,000	
			1,490,550,000
Other Liabilities			
Government Grants		17,537,000	
Current Liabilities		38,185,000	
Deferred Liabilities		3,790,000	
Unadjusted Credits		33,756,000	
Appropriated Reserves		5,092,000	
			98,360,000
Total Liabilities			\$3,114,426,000
Profit and Loss Account—Deficit			*748,413,000*
			\$2,366,013,000

[3]Canadian National Railway System, *Auditors' Report on Financial Accounts Year Ended December* 31, 1933, Ottawa, March 15, 1934.

On December 31, 1933, the assets of the system were less than the liabilities by the accumulated deficit of $748,413,000. The investment in road and equipment was listed at $2,138,-241,000. Other investments in affiliated companies, miscellaneous physical property and sinking funds amounted to $122,117,000. In addition there were current assets of $67,-631,000, deferred assets (insurance funds, etc.) of $19,214,-000, and unadjusted debits amounting to $18,810,000. The total assets of the system amounted to $2,366,013,000. The investment in road and equipment represented the accumulated capital expenditures, less retirements, of all of the companies comprised in the system, extending back in the case of the Grand Trunk to the beginning of railway development in Canada in 1836, and including all of the sins of omission or commission of which the railway managements were guilty. It included the huge construction costs of the Canadian Government Railways and the Grand Trunk Pacific, which were extravagantly built through virgin territories on the standards of first-class, long established railways. There were also the overvalued properties of the Grand Trunk Railway and the Canadian Northern, which were inflated by at least the amount of the stocks ($265,000,000) that were adjudged practically valueless. Finally, it included capital expenditures since the year 1919 amounting to $678,000,000 or, on the average, $45,200,000 a year for the fifteen years.[4]

Most of the long-term debt in the hands of the public bears the guarantee of the Dominion or Provincial Governments and from the standpoint of practical considerations the remainder may substantially be regarded as a government liability.[5] The loans from the Government amount to a very sizeable figure and they involve an annual interest accrual in the income

[4]The $678,000,000 figure included capital expenditures for road and equipment and for miscellaneous physical property of $190,000,000 for the years 1919-22, and capital expenditures for road and equipment of $382,000,000 for the years 1923-33,—an average annual investment of $38,000,000 for fifteen years. For the latter period there were also capital expenditures in hotels, separately operated properties, affiliated companies, sinking and insurance funds amounting to $106,000,000, making total capital expenditures for the fifteen years of $45,200,000 per year.

[5]As it consists of issues which are either senior to the guaranteed issues or are secured upon important integral parts of the system.

account amounting in 1933 to $36,034,000. Part of the advances from the Government, amounting to nearly $190,000,000, was paid to the Grand Trunk Pacific and the Canadian Northern railways prior to their acquisition by the Government. Of the remainder, $317,000,000 were advanced to the constituent companies in the four years 1919 to 1922, inclusive, and $155,000,000 from 1923 to 1933, inclusive.[6] No part of the annual interest due the Government has been paid, so that the accrued liability for unpaid interest has increased steadily year by year. At the close of 1933 it amounted to $424,338,000.

The huge burden of debt of the Canadian National is out of all proportion to the earning power of the property. Moreover, the policy of meeting operating and interest deficits by borrowing has piled up several hundred million dollars of interest-bearing debt without any corresponding assets. The money to pay the income deficits (excluding interest on government advances which was simply accrued) had to come either from the Government or from the public through an increase in funded debt. The policy in that respect was not uniform, for the sums which were required to meet deficits were sometimes raised by the issue of guaranteed railway securities and sometimes by loans from the Government. It is immaterial which method was followed in any year since the net result was to increase the interest-bearing liabilities of the system without a corresponding increase in its assets.

It is not possible to compute accurately the amount of interest-bearing liabilities on the books of the Canadian National that was incurred for the purpose of paying cash income deficits in the course of the history of the Canadian National System or its constituent companies. To do so would require a careful audit of the accounts over a long period of years. To be sure, the profit and loss deficits (excluding unpaid interest on government advances) can be obtained for most, if not all, of the years in which deficits were reported. But the summation of the profit and loss deficits (less unpaid interest on govern-

[6]The cash deficits for 1932 and 1933 were paid by the Government but were not added to the loan account; see page 224.

ment advances) does not give the figure that we are seeking, since the profit and loss deficits include non-cash deductions such as depreciation, retirements, etc., and for that reason the actual cash that had to be borrowed to meet income deficits was less than the reported profit and loss deficits. Moreover, in the course of the history of the constituent companies, large items for interest were capitalized in the value of the properties and were not charged against revenues; in that way the deficits of the Grand Trunk Pacific and the Canadian Northern were understated for several years. Similarly, as was brought out in the Grand Trunk arbitration case, the accounts of that company were manipulated for a series of years down to, and including, 1920. However, a very fair approximation of the amount of interest-bearing debt that was incurred to pay deficits was shown in an unpublished statement prepared by railway auditors of the Dominion Government in co-operation with the accounting department of the Canadian National. It gave an itemized statement of the disposition of (1) all cash loans from the Dominion Government to the Canadian National system or its constituent companies down to December 31, 1931; and (2) the outstanding funded debt of the Canadian National on December 31, 1931, guaranteed by the Dominion Government. A summary statement of this information is given on page 228.

This statement represents the most reliable information which can be obtained concerning the disposition of the proceeds of the outstanding debt liabilities of the Canadian National. At least $316,656,000 of the interest-bearing liabilities represented unproductive expenditure in that they were incurred for the purpose of paying cash deficits. Officers of the Canadian National have maintained that the effect of continuing to regard the amounts advanced for unproductive purposes as an interest-bearing liability is to burden the system with an interest charge that is clearly beyond its capacity to pay. However, the interest on government advances has never been paid; it is simply accrued annually, on the books of the System. It may properly be argued that money advanced by the Government to the Canadian National had an alternative

earning power and that since interest on such loans is as much a responsibility of the railway as the principal, it is necessary to show the accrual of all interest charges in the railway's accounts in order that the results of its operations may at all times be correctly reflected.

Disposition of Cash Loans from the Dominion of Canada and Proceeds of Securities of the Canadian National System Guaranteed by the Dominion of Canada, Outstanding on December 31, 1931[7]

Distribution	*Cash Loans Outstanding*	*Guaranteed Securities Outstanding*	*Total*
Capital Expenditures	$247,736,620	$407,981,932	$655,718,552
Debt Redemption	86,605,039	172,082,827	258,687,866
Payment of Deficits	241,535,587	75,120,418	316,656,005
Acquisition of Securities		38,206,753	38,206,753
Discount		18,450,962	18,430,962
Working and Other Balance Sheet Accounts	28,528,994	7,605,157	36,134,151
Guarantee of Existing Securities		251,134,240	251,134,240
Totals	$604,406,240	$970,562,289	$1,574,968,529

The recent Royal Commission referred to the problem of the overburdened capital structure of the Canadian National in the following passage:[8]

"It has been suggested that in view of the excessive capital liabilities in relation to the earning power of the System they should be reduced to an amount which would more nearly approximate the earning power of the railway. The net operating income (i.e., the amount available for interest and dividends) of the Canadian National System for the period 1923 to 1931 inclusive averaged $24,414,447 per annum. This figure would require adjustment if adequate provision

[7] The loans and securities represented in the table included all of the interest-bearing liabilities of the system on December 31, 1931, except the remainder of the funded debt in the hands of the public, amounting to $305,895,000 and $35,000,000 of short-term loans. The writer is informed that this statement has been published.

[8] Duff Commission Report, p. 30.

were made for depreciation. It is obvious that on this basis of earnings the capital liabilities would require a very drastic writing down. And while this commission is of [the] opinion that it must be frankly recognized that a very substantial part of the money invested in the railways comprised within the Canadian National System must be regarded as lost, and that its capital liabilities should be heavily written down, they do not consider that the time is opportune to deal with this important matter.

"This question as well as that previously referred to, dealing with the present involved financial structure of the Canadian National System, should, in the opinion of the commission, have the early attention of the Board of Trustees, which it is recommended should be entrusted with the control and management of the System."

The Royal Commission also recommended that sums which are required to meet deficits should be voted by Parliament annually and not raised by the issue of railway securities "as has been done in recent years". As a result of this recommendation, the Government paid the cash deficits of the Canadian National for 1932 and 1933, amounting to $53,422,662 and $52,263,819 respectively, in addition to the deficits of the "Eastern Lines" (which have been paid by the Government since 1927 under the Maritime Freight Rates Act). The Canadian National now treats government advances to meet cash deficits as a contribution from the Government. Accordingly, these amounts are not shown in the consolidated balance sheet of the system, and the profit and loss account no longer fully reflects the accumulated deficits of the enterprise. This seems to be a mistake, since a clear record is not maintained as to what the railway system is really costing the people of Canada. A more defensible method of accounting would show the funds advanced to pay cash deficits in a separate account on the balance sheet of the Canadian National, possibly not bearing interest (although the question of interest is one on which there are reasonable grounds for a difference of opinion). In this way the profit and loss account would continue to reflect the true deficit position of the railway and there

would also be a record on the balance sheet of the full amount of the advances by the Government to the railway.

A proposal for reorganizing the financial structure of the National System was made in 1921 by Sir Joseph Flavelle.[9] At the end of 1920 the system had fixed charges of $32,500,-000 on securities held by the public. Annual interest on government advances amounted to $14,350,000. Flavelle estimated that new securities to supply funds for capital improvements in the course of the ensuing five or seven years would entail additional interest charges of $17,000,000. The sum total of these interest charges, together with taxes and rentals for leased lines, would amount to $66,000,000. He said: "Manifestly, the Canadian National System, with its second transcontinental line that is not immediately required, plus the burden of the National Transcontinental . . . cannot possibly bear fixed charges of such magnitude." He proposed that the cost of constructing the Intercolonial and the Transcontinental be written off; that the actual cost to the Government of acquiring the Canadian Northern be converted into common stock of the new Canadian National Railway Company and that the Government take common stock at par in payment of its existing advances to the system. Future capital for additions and improvements to the system would be supplied by the Government in return for preferred stock at par. The Government would continue to finance deficits and would receive common stock at par for money advanced for that purpose. The implied advantages of the Flavelle plan at that time were:

(1) that it would have held the fixed charges down to $32,500,000 per annum, since new capital for improvements would have been supplied by the Government in return for preferred stock;

(2) that it would have shown what the cost to the Government had been of acquiring the system (after writing off the National Transcontinental and the Intercolonial), since this would have been represented by common stock;

[9] *The Canadian Annual Review*, 1921, pp. 395-6.

(3) that future losses sustained in operation and in payment of fixed charges would have been represented by common stock rather than by interest-bearing loans.

In a report to the Minister of Railways and Canals, dated March 15, 1934, the official auditors of the Canadian National recommended a series of adjustments in the capital structure of the Canadian National.[10] Their proposals may be divided into two groups, the first covering the writing down of the stocks of the former Canadian Northern and the Grand Trunk with a corresponding reduction in the Property Investment Account, and the second covering the elimination of the Government Loan Account together with Accrued Interest and writing off the accumulated deficit of the System.

In the first group there were the following proposals:

(1) Write out completely the old Grand Trunk stock, amounting to $165,628,000 and reduce the Property Investment Account in the same amount, because the Grand Trunk Board of Arbitration in 1921 declared the stocks worthless and found the property investment values to be substantially overstated on the books.

(2) Write down the Canadian Northern stock from $100,000,000 to $18,000,000 and reduce the Property Investment Account by $82,000,000, because the Canadian Northern Arbitration Board in 1918 found this stock to be worth $18,000,000.

(3) Write out Government Grants in Aid of Construction, $15,143,000, and reduce the Property Investment Account by the same amount. This was an old grant made to the Grand Trunk Company, but it constituted a claim that was junior to the Grand Trunk stock which was declared valueless.

Since the changes involved in the foregoing proposals would bring the books of the System into conformity with established facts, there could be no reasonable objection to putting them into effect. But the other suggestions are highly controversial and merit a thorough discussion. These suggestions were as follows:

[10]Canadian National Railway System, *Auditors' Report on Financial Accounts Year Ended December* 31, 1933, Ottawa, March 15, 1934.

(4) That the Government exchange its creditor claims in respect of loans made for capital purposes, amounting to $337,758,000, for No Par Value stock in the Canadian National Railway Company of the same stated value.

(5) To write out completely the proportion of the Government Advances equal to the cash deficits, amounting to $324,075,000, and reduce the Deficit Account in like amount. The auditors justified this proposal on the ground that these advances "represent nothing but a contribution by shareholders to replace their impaired capital," and pointed to the fact that this principle is already recognized in the absorption by the Government of the Cash Deficits of the Canadian National for 1932 and 1933.

(6) To write out completely the Interest Accruals on Government Advances amounting to $424,338,000 and reduce the Deficit Account in like amount. With respect to this proposal it was argued that the Government sets up no relative asset for such interest accruals in the Public Accounts.

If the proposed financial reorganization were to go into effect, the equity of the Government in the system would be represented by capital stock to the amount of $355,758,000 and by its investment in the Canadian Government Railways amounting to $404,379,000. The proposed changes would eliminate $1,011,184,000 from the capital liabilities of the Canadian National, which would be offset by wiping out the Deficit Account of $748,413,000 and by reducing the Property Investment Account by $262,771,000. In support of the plan, the auditors declared that the status of the Government would not be altered in so far as its equity in and claim upon existing assets of the National system are concerned.

A condensed balance sheet of the Canadian National Railway System for December 31, 1933, with a comparison of the balance sheet as it would be if effect were given to the auditors' proposals follows herewith:

Canadian National Railway System
Condensed Balance Sheet as at December 31, 1933 as Published and After Giving Effect to Auditors' Report

Assets

	As Published	*As Proposed*	*Inc. or Dec.*
Investments	$2,260,357,580	$1,997,586,608	$262,770,972D
Current Assets	67,630,615	67,630,615	
Deferred Assets	19,214,488	19,214,488	
Unadjusted Debits	18,810,189	18,810,189	
Total Assets	$2,366,012,872	$2,103,241,900	$262,770,972D

Liabilities

	As Published	*As Proposed*	*Inc. or Dec.*
Stocks: Can. Nat. Rlys.		$ 355,758,368	$355,758,368
Grand Trunk Rly.	$ 165,627,739		165,627,739D
Can. Northern Rly.	100,000,600		100,000,600D
Other	4,585,225	4,585,225	
Total Stocks	$ 270,213,564	$ 360,343,593	$ 90,130,029
Governmental Grants	17,536,948	$ 2,394,315	$ 15,142,633D
Debt: Due Public	$1,255,302,155	$1,255,302,155	
Loans from Government	661,832,896		$661,832,896D
Interest unpaid	424,338,109		424,338,109D
Can. Gov. Ry. Expenditures	404,378,682	404,378,682	
Total Debt	$2,745,851,842	$1,659,680,837	$1,086,171,005D
Other Liabilities:			
Current Liabilities	$ 38,185,346	$ 38,185,346	
Deferred Liabilities	3,789,946	3,789,946	
Unadjusted Credits	33,755,574	33,755,574	
Appropriated Reserves	5,092,289	5,092,289	
Profit and Loss Balance (Deficit)	748,412,637D		748,412,637
Total Other	$ 667,589,482D	$ 80,823,155	$ 748,412,637
Total Liabilities	$2,366,012,872	$2,103,241,900	$262,770,972D

Summary of Items to be Written Off:

Stocks and Governmental Grants	$ 262,770,972
Debt due Government	748,412,637
Total to be written off	$1,011,183,609

One of the arguments which has frequently been advanced to justify the adjustment of the accounts of the Canadian Na-

tional is that the component parts of the System were bankrupt when acquired by the Government, but were not allowed to pass through receivership proceedings for the purpose of eliminating part of their debt liabilities and of bringing their capital charges in line with their existing or prospective earning powers. It is also argued that the proposed adjustment of the capital structure of the Canadian National is analogous to the financial reorganization of a private railway. The fact that there is a degree of similarity between the auditors' proposals and a private railway reorganization may be admitted, but it is important to note certain significant differences between the two. When a private company becomes insolvent, it has no other recourse than to go through receivership, since it is entirely dependent upon its own earnings for the payment of its fixed charges. The objective is to reduce fixed charges to the point where they can be met out of earnings even in poor years. But no such beneficial purpose can be achieved by the proposed adjustment of the capital structure of the Canadian National, because the amount of its securities in the hands of the public has increased to such an extent in the past ten years that it can only hope to meet its fixed charges on such securities in exceptionally good years. Consequently, the Dominion Government necessarily must continue to finance the deficits and the capital requirements of the Canadian National, since only repudiation of its guarantees could relieve the Government of that responsibility. In so far as the past is concerned, there is now no doubt that the Government should have aided the financial reorganization of the component parts of the Canadian National when they failed, so as to enable them to continue as private enterprises. But as soon as the Government assumed full financial responsibility for the operation of the Canadian National, there was not the same compelling motive for reorganizing the capital structure of the system as there would have been if the policy of private responsibility had been retained.

The second difference between the auditors' proposals and a private railway reorganization is perhaps even more fundamental. The losses which private investors suffer when their

venture fails and is reorganized are direct and personal. This has the effect of providing a powerful incentive for caution and for economical operation of their property in the future. But in the case of the Canadian National, the losses are borne by the taxpayers and the burden is not direct and personal. Moreover, the memory of the public is short, and if the record of past losses is removed from the books of the Canadian National, there would be far less assurance of economical expansion and operation of the system in the future than there would be if there is a constant reminder of the real cost of its operations. As pointed out earlier, the taxpayer plays a dual rôle in relation to the Canadian National; he looks to the railway for service and he foots the deficits. But in the past he was more conscious of the railway service which was available than he was of the effect of railway deficits on his taxes. Consequently, there is a real danger that the auditors' proposals may eventually have the effect of misleading the public as to the real cost of their experiment in railway nationalization, and thereby postpone the day when a logical solution of Canada's railway problem must be faced.

A further argument in justification of the auditors' proposals was advanced by the new Chairman of the Board of Trustees of the Canadian National on June 6th, 1934, before the Parliamentary Standing Committee on Railways and Shipping, to meet the criticism that no useful purpose would be served by the adjustments. He said:[11] "I disagree with this view. There are many reasons, one of which is the disheartening effect upon the management and the employees, who must face year after year an insurmountable burden of debt. The effect of this should not be underestimated. The enterprise, viewed as a business concern, is also in my opinion prejudicially affected by this condition. I believe it would stimulate the organization if they were given an objective which it would be within their power to reach. If that objective should be to earn the interest on the funded debt in the hands of the public that would constitute a task of real magnitude, but not

[11]Select Standing Committee on Railways and Shipping, House of Commons, *Proceedings,* June 6, 1934, pp. 4-5.

beyond the possibility of accomplishment with a return of something like normal conditions. We must not forget that there can never be a repetition of expenditure on a scale such as existed during the last decade." It is submitted that this argument should be somewhat discounted, since the people of Canada and their political representatives are fully cognizant of the historical background of the financial problems of the Canadian National Railways. Moreover, it does not seem reasonable to hold that the efficient and economical operation of the Canadian National is prejudiced by the large fixed charges of the System. On the contrary, the huge obligation of the System to the Government should be regarded as a safeguard against uneconomic policies and operations in the future.

On the basis of these general remarks, attention may now be given to the specific recommendations. The proposal to convert the loans made for capital purposes from interest-bearing obligations to capital stock is unjustifiable. The funds for such advances were obtained by the Government either from the sale of bonds on which it must pay the interest charges, or from taxation which might otherwise have been used to reduce the public debt. It is therefore necessary to accrue interest in order that the financial results of the System's operations will be fully and properly recorded. The proposal would also create a very bad precedent for the future, for if the Canadian National were relieved of the necessity of accruing interest on advances for capital purposes, there would be no safeguard whatsoever against extravagant demands on the Government for loans for capital purposes. The argument in favor of exchanging advances for capital purposes into capital stock was stated by the Chairman of the Board of Trustees of the Canadian National as follows:[12] "In respect of funds furnished by the Government for capital expenditures, the proposal is that such funds be represented by shares rather than loans in order that there may be a proper relationship between the two classes of capital." While this would be sound reasoning for a private corporation, which

[12] *Idem.*

must constantly maintain its financial solvency, it does not apply to a government enterprise in the financial condition of the Canadian National, for funds supplied by the Government on that basis would be nothing but an outright subsidy. In that connection it is fundamental that any operations which the Government may conduct on a commercial basis in competition with private enterprise should be charged with the cost of the capital employed therein.[13]

The proposal to eliminate from the accounts of the System an amount equal to the cash deficits, aggregating $324,075,000, is also unsound. Not only would the record of these advances be removed from the books, but the accumulated deficit would be improperly reduced by an equivalent amount. As pointed out earlier, the policy which was instituted in 1933, of treating money received from the Government to pay cash deficits as a contribution or subsidy, has already had the effect of eliminating from the System's balance sheet the cash deficits for 1932 and 1933, amounting to $106,000,000. It should be noted that the effect of the auditors' recommendation regarding past advances, if carried out, would be to eliminate from the Income Statement of the Canadian National the entire annual interest charges due the Government, which in 1933 amounted to $36,034,000. Consequently this recommendation, when added to the policy now in effect with

[13]There is a fundamental difference between a private and a public business enterprise. The capital invested in a private company depends entirely for its return upon the earnings of the enterprise. Consequently the company must maintain a reasonable relationship between its fixed charge securities and its share capital, and the shareholders take the risk of receiving a return only when the company's earnings justify it. In theory a public enterprise could be financed by the same methods if the Government as the owner of the share capital could be relied upon to exercise the same discriminating judgment and have the same expectation of a return upon its investment as is the case with private investors. In practice, however, the funds for public business enterprises are invariably raised by fixed charge securities, and they usually rest not on the credit of the enterprise but on that of the Government. The capital thus obtained carries a lower rate of return than must be paid to attract capital to a private concern, and from the standpoint of the enterprise this is an important advantage if the business is financially successful. But on the other hand it is a real disadvantage if the enterprise is not profitable, on account of the compounding aspect of unpaid interest on borrowed funds. Inasmuch as the Government chose to raise the capital for the Canadian National on the credit of the Government, the Canadian National in point of fact has no shareholders in the real sense of that word, and as a result there can be no honest escape from the burden of interest on the funds invested in the System.

respect to cash deficits, would enable the Canadian National to remove from its balance sheet each year practically its entire deficit, no matter what may be the actual results of its operations. Yet from the standpoint of sound accounting, it is important that the books of the System present a complete record of past and present operations. Therefore, the railway's accounts should continue to show the amount of past advances from the Government and the amount of the accumulated deficit. In an attempt to meet this objection to their proposals, the auditors pointed to the fact that the accounts of the System do not now present a complete record of past operations, and that the adjustment of the capital structure of the Canadian National "would not preclude the Government from establishing and maintaining in perpetuity a historical record covering the sums appropriated on Canadian National account for all purposes." These arguments are by no means convincing, for in effect the auditors claimed that there is no purpose in continuing to show on the books of the System a reasonably complete record of past and current operations, on the ground that certain items are not now in the System accounts. Yet the auditors' evidence shows that the amounts which are not now included are but a fraction of the amounts which they now propose to delete from the accounts, as may be seen from the following items which are not included in the balance sheet of the Canadian National:

(a) Deficits of the Canadian Government Railways prior to 1923	$53,000,000
(b) Cash deficits of Eastern Lines 1927-1933	40,000,000
(c) Cash deficits of Canadian National Railways 1932 and 1933	106,000,000
(d) Cash subsidies	44,000,000
(e) Other payments	22,000,000
	$265,000,000

With the exception of item (c), there were certain reasonable grounds for not showing these items on the books of the System. Item (a) has been included in the Government budget and absorbed in the Consolidated Fund prior to the consolidation of the Canadian National Railways. Item (b) is in the nature of a subsidy to relieve the Canadian National

of any burden with respect to Eastern Lines and items (d) and (e) were for the most part transactions prior to the formation of the Canadian National Railways. On the other hand item (c) should not have been written off the books of the Canadian National. For, while the policy of accruing no interest on money advanced to pay deficits may be defended, the balance sheet of the railway should continue to show both the accumulated deficit and the full amount of the advances from the Government. In the event of there being surpluses in the future, such surpluses could be applied in reduction of past advances and past deficits, thus clearly at all times reflecting on the books of the railway what has taken place since the inauguration of the Canadian National Railways.

The final proposal to wipe out the interest accruals on Government advances, amounting to $424,338,000, and correspondingly to eliminate that amount from the accumulated deficits involves the same objection as the other proposals. This interest represented part of the cost of conducting the operations of the Canadian National Railways and for that reason it should continue to be shown in its accounts.[14]

Corporate Complexity of the Canadian National

Another aspect of the financial problem of the Canadian National relates to the large number of companies in the system, the corporate existence of which must be maintained. There are 101 companies in the system, and with respect to these 42 separate income accounts and 90 separate balance

[14]Part of the accrued interest was on money advanced to pay deficits. As indicated earlier, there may be room for a difference of opinion as to the policy of accruing interest on money advanced to pay deficits. For example it might be argued that the railway could never be expected to pay interest on money advanced for such an unproductive purpose. In line with this argument, the following suggestions might be made: (1) eliminate from the Accrued Interest Account that amount which represented interest on advances to pay deficits, and correspondingly delete the same amount from the Deficit Account and (2) in the future follow the policy of accruing interest only on money advanced for capital purposes. If this suggestion were adopted, the balance sheet of the System would show (1) the advances from the Government for capital purposes, (2) accrued simple interest on such advances, (3) the advances for payment of deficits (without the accrual of interest) and (4) the full accumulated deficit of the System with the omission of (a) interest on advances to pay deficits and (b) deficits of Eastern Lines which are contributed as a subsidy from the Government to relieve the Canadian National of any burden with respect to Eastern Lines.

sheets have to be prepared each year. Since 1923 the management of the Canadian National has published the results of operation and the financial status of the various companies in a consolidated balance sheet and income account. However, the companies comprising the Canadian National have yet to be legally consolidated. At present they are held together loosely by the bond of common ownership. This entails considerably more expense for accounting than would be necessary if the various properties were amalgamated.[15]

Closely related to the corporate complexity of the Canadian National is the maze of security issues that is outstanding. There are about 80 different issues of securities in the hands of the public. Some of these are guaranteed by the Dominion Government, some by Provincial Governments, some have fixed maturity dates, while others are perpetual. On portions of the railway there are as many as eight different mortgages. Had the insolvent properties now included in the system passed through receivership, as is usually the case when private railways fail, this mass of securities could have been refunded and a new and simple financial structure could have been adopted. However, the Government rejected the policy of receiverships and left the financial structures of the properties undisturbed. It now appears that the Government should have required financial reorganization of the properties in the interest of simplification of the capital and corporate structure of the system. This could have been done even though the Government was unwilling to make the various bondholders bear a part of the burden of failure. Such a reorganization would have been much easier to accomplish and less expensive, if it had been stipulated as part of the government purchase plan with the alternative of bankruptcy and receivership.

The Canadian National Railway Company, since its amalga-

[15]The Auditors' Report submitted to Parliament on March 15, 1934, discussed the question of consolidating the numerous companies which comprise the Canadian National System as follows: "However desirable the unification of the corporate structure of the National System would be from the standpoint of simplification and the reduction of accounting costs, it would not appear to be within the range of practical accomplishment in the near future, owing to the legal and financial problems arising as a result of the diversification of public holdings of securities in constituent corporations and international complications caused by State Laws."

mation with the Grand Trunk Railway Company, has acted as banker for the forty-odd subsidiaries of the Grand Trunk, and for the Canadian Northern and its numerous subsidiaries. With the exception of equipment trust issues, the financing of the various companies, both for refunding purposes and for new capital, is now entirely through government assistance, either by means of its guarantee of Canadian National securities or by cash advances. All but $220,000,000 of the outstanding securities bore the guarantee of either the Dominion or one of the Provincial Governments at the end of 1933, and the contingent liability of the Dominion Government is increasing steadily year by year.

Receipts and Expenditures 1923-1933

The financial operations of the Canadian National System for the eleven years, 1923 to 1933 inclusive, are summarized in the following statement of receipts and expenditures.[16]

In the eleven-year period there was an increase of $515,000,000 in the funded debt guaranteed by the Dominion Government and a decrease of $64,000,000 in the non-guaranteed debt, giving a net increase in the funded debt of nearly $451,000,000. The sum of the net proceeds from new security issues, the decrease in the cash account, public appropriations for capital expenditures of the Canadian Government Railways and the reduction in working accounts amounted to $483,000,000. This was nearly equal to the increase in the investment in fixed railway property, equipment, hotels, sinking funds, etc., which amounted to $489,000,000. Therefore, in effect, practically all of the money advanced by the Government went to pay the cash deficits of the system for the eleven-year period. In accordance with the legislation passed in 1927 the Government advances on account of the

[16]Canadian National Railway System, *Annual Report,* 1933, p. 18. The table of Receipts and Expenditures in the *Annual Report* reported the total cash deficit for the eleven years; the remainder of the table, showing the total cash deficit plus Government Interest, was added by the writer. The resultant deficit, $641,574,416, should not be confused with the total income deficit of $644,755,404 as shown in Table 38, Chapter VIII, which included certain non-cash items which were not included in the cash deficit, as shown in the Receipts and Expenditures statement.

CANADIAN NATIONAL RAILWAY SYSTEM
RECEIPTS AND EXPENDITURES 1923-1933

RECEIPTS

Cash on hand January 1, 1923				$20,790,857.20
Funded Debt—net proceeds				438,237,449.78

	Dominion Guaranteed	*Other*	*Total*
New issues, par	$561,500,000.00	80,640,341.43	642,140,341.43
Retirements, par	*81,307,426.02*	*110,033,904.47*	*191,341,330.49*
Exchanged, par	34,927,098.20	*34,927,098.20*	
Net, par	515,119,672.18	*64,320,661.24*	450,799,010.94
Discount & issue expense	*11,995,068.50*	*566,492.66*	*12,561,561.16*

Loans from Dominion of Canada	154,886,926.19
Payments by Dominion on account of cash deficits, C. N. Rys., 1932 and 1933	93,394,560.57
Payments by Dominion on account of cash deficits, Eastern Lines	39,505,349.58
Appropriations from Public Funds for capital expenditures on Canadian Government Railways	5,690,131.66
Reduction in working and other balance sheet accounts	33,671,368.30
	$786,176,643.28

EXPENDITURES

Investment in Fixed Railway Property	$257,241,509.41	
" Equipment	125,017,115.65	
" Hotels	24,959,260.09	
" Separately Operated Properties	14,203,889.78	$421,421,774.93
" Affiliated Companies		40,460,569.20
" Sinking Funds		17,056,338.18
" Insurance Fund		9,634,305.34
PROFIT AND LOSS DEFICIT: Excluding interest on Government Loans		
Deficit per the accounts after payment of $501,213,481 interest on securities owned by Public	$303,837,909.40	
Deduct, charges not applicable to the period	12,199,306.82	
" appropriations for Insurance Fund	9,634,305.34	282,004,297.24*
Cash on hand December 31, 1933		15,599,358.39
		$786,176,643.28

*Deficit for the 11 year period:—	
Net earnings available for interest	$219,209,184
Total interest due to the Public	501,213,481
Total cash deficit	282,004,297
Unpaid interest on Government loans	359,570,119
Total deficit for 11 years	$641,574,416
Average cash deficit per annum for 11 years, including Eastern Lines	$25,636,754
Average deficit per annum for 11 years, including Government interest	58,324,947

deficits of Eastern Lines since June 1927 have not been added to the loan liabilities of the Canadian National, and consequently they do not appear on the balance sheet of the system.

The statement also shows that the System was short of meeting fixed charges on its securities in the hands of the public by the amount of $282,004,297, i.e., there was an average annual cash deficit for the eleven years of $25,636,754, which had to be paid by the Government. The total deficit for the eleven years was $641,574,416, or an annual average of $58,324,947.[17] This was the average amount by which the earnings of the system failed to cover interest on its securities in the hands of the public and interest on advances from the Government. It represents the real loss from the operations of the Canadian National Railways, a loss which was borne by the taxpayers of Canada. In comparison, it is significant to note that up to the time when the Government took over the Canadian Northern, the Grand Trunk Pacific and the Grand Trunk systems, it had guaranteed $115,102,762 of their securities and had given them cash aid to the amount of $175,932,666.[18] At 4½ per cent interest, the total annual carrying charges on these cash advances and guarantees would have represented a cost of slightly more than $13,000,000, as contrasted with the average annual cost of $58,324,947 for the eleven years 1923 to 1933. It is submitted that the Government could have avoided most of this additional annual burden if it had refrained from embarking on a policy of railroad nationalization and had simply aided the reorganization of the embarrassed railways with a continuation of private operation.

Pensions

Expenditures of the Canadian National for employees' pensions have increased at a rapid rate in recent years. In 1923 the contributions of the system amounted to $627,000,

[17]Strictly speaking the total income deficit was $644,755,404 as explained in footnote 16.

[18]See Appendix at the end of this chapter.

in 1928 they were $1,493,000 and in 1933, $3,105,000. There are three pension plans in effect on the System, two of which have for some time been closed to further applicants, while the third is the active pension plan for all employees of the System who are not members of the other plans. One of the plans was inaugurated on the Grand Trunk Railway System in 1874 and was closed to further members in 1907. At the end of 1931 there were 237 contributors to this plan, and there were 112 members in receipt of a pension. The other closed plan was established on the Canadian Government Railways in 1907, but it was never on a sound actuarial basis. It was closed to additional members in 1929. At the end of 1931 the number of contributing members was 10,650, and 1,339 were receiving a pension at a cost to the Canadian National of $656,000. The principles of the third plan were established in 1929 in the Canadian National Railway Pension Act, which superseded other pension rules and regulations, with certain exceptions. This plan was non-contributory and operated without a fund, the pensions being paid directly out of system revenues. The method of determining a pension was to allow one per cent of an employee's highest average rate of pay during any ten consecutive years for each year of service, with a minimum pension of $25 per month. Pensions were granted (a) to employees retiring at 65 or over, after 15 or more years of service; (b) to employees retiring for cause at ages of 60 to 65 after 20 years of service; (c) to employees disabled in the company's employment after ten or more years of service; and (d) to employees discharged for other than misconduct at the age of 50 or upwards, after 15 or more years of service. No person whose age at entry of service exceeds 50 years was eligible for a pension, although under certain conditions there were exceptions to this rule.

The main features of the Pension Plan scheduled to go into effect on January 1, 1935, are as follows:[19]

1. Every employee who joins the service of the Company after January 1, 1935, before attaining the age of 45 shall be entitled on his retirement at the age of 65 after con-

[19] *Canadian National Railways Magazine,* July 1934, pp. 6, 15 and 20, which give full details of the plan.

tinuous service to a basic non-contributory pension of $300 per annum.

2. Every employee in the service of the Company on January 1, 1935, who joined the service at 50 years of age or under shall receive the basic non-contributory pension on retirement at age 65 unless entitled to a higher basic pension under the following provision:
3. If such employee has completed more than 10 years' service on January 1, 1935, he may receive a service pension on retirement at age 65, in lieu of the basic pension, represented by one per cent of his highest average salary for any ten consecutive years, multiplied by his years of continuous service up to January 1, 1935.
4. For the purpose of supplementing the basic or service pensions, the plan provides for voluntary contributions by an employee, after ten years' service, of from one to ten per cent of his salary; the Company will match this contribution up to and including five per cent of the employee's salary.
5. Upon retirement at age 65, each employee shall receive his basic or service pension, and in addition such supplemental annuity as may be purchasable with his contributions and the added contributions of the Company, together with accrued compound interest.
6. In the event of the death of any contributor before retirement, his own contributions together with accumulated interest shall be paid to his estate.
7. If the service of a contributor is terminated before reaching 65 years of age, his own contributions together with accumulated interest shall be repaid on request or may be allowed to remain on deposit in the Annuity Trust Account.
8. Provision is made for the payment of the basic and contributory pensions to an employee between the ages of 60 and 65 who has 20 or more years of service, and who is retired by reason of permanent physical or mental disability upon the certificate of the Company's Chief Medical Officer.

9. The Trustees of the Canadian National Railways may grant a gratuitous pension allowance:
   (a) to employees of 50 years of age and over, with fifteen years' service who are discharged from the Company's service otherwise than for misconduct;
   (b) to employees with ten years' service who become incapacitated from injuries received in the Company's service, but only for so long as their incapacity shall continue.
10. The provisions of the Pension Fund shall be deemed to constitute a contract between the Company and each individual employee, but the total amount paid by the Company (as distinct from the employee's own contributions) on account of any individual pension, including the annuity and basic or service pension, computed as a simple annuity at age 65, shall not in any case exceed 40 per cent of such employee's highest average salary during any ten consecutive years of his whole period of service. Provided, however, that this limitation shall not apply in any case where the individual pension is not more than $600 per annum, nor to reduce any service pension established at the date when these regulations go into effect, (presumably January 1, 1935).
11. Pensions now being paid under other pension plans shall not be affected by the new plan.

Certain administrative features of the new Pension Fund may be noted. The Pension Fund shall be administered by a Board of seven members, four of whom shall be officers of the Company, inclusive of the Vice-President of Finance of the Company who shall be Chairman of the Board; three members shall be elected, with the approval of the Trustees of the Canadian National, from the ranks of officers of the recognized Labour Organizations on the Canadian National by vote of such officers. Five members shall constitute a quorum. A superintendent of pensions, appointed by the Chairman of the Pension Board, shall have supervision of the Pension Fund. Finally, it is important to note that while the contributions of the employees shall be paid into an Annuity

Trust Account and invested in Dominion Government securities or securities guaranteed by the Dominion Government, the contributions of the Company will be simply accrued to the credit of such contributor. Therefore the Company will not have to provide the money for its contributions until the retirement, under pension, of a contributing employee.

It is outside the scope of the present study to give a detailed analysis of the new pension plan. An intelligent appraisal would have to rest in part upon its actuarial features from the Company's point of view in comparison with the plan which it superseded. The burden of pension payments was undoubtedly increasing too rapidly and it was necessary to adopt a contributory pension plan in order to lessen the future pension liability of the Company. At the same time it would appear that the plan is both fair and liberal from the standpoint of the employees.

FREIGHT RATES

Extended discussion of the level of freight rates in Canada cannot be attempted here, although a few general observations are pertinent at this point.

The Canadian rate structure is, on the average, lower than that in the United States. The following tabulation of rates per ton mile on Canadian and United States railways indicates the very favorable rate structure prevailing in Canada:

Average Earnings Per Ton Per Mile

Year	*All Canadian Railways*	*United States Class 1 Roads*
1923	.987c	1.116c
1924	1.019	1.116
1925	1.012	1.097
1926	1.043	1.081
1927	1.032	1.080
1928	.994	1.081
1929	1.099	1.076
1930	1.090	1.063
1931	1.013	1.051
1932	.937	1.046
1933	.955	.999

These figures show that lower rate levels in Canada have prevailed practically throughout the whole period.

The grain traffic, which forms a much greater proportion of total traffic in Canada than in the United States, is a material factor in producing the low average earnings per ton mile in the table just given. Rates on grain in Canada are much lower than in the United States. The present rate structure on western grain traffic in Canada is based entirely on the Crow's Nest Pass Agreement of 1897 between the Dominion Government and the Canadian Pacific Railway. Under the Railway Act the Board of Railway Commissioners for Canada possesses sole jurisdiction over freight rates, but there is an exception in regard to the statutory Crow's Nest scale. The Crow's Nest Pass Agreement has become of outstanding importance in Canadian economic life, and the history briefly is as follows: In 1897 (more than ten years after the fulfillment of the original contract) the Canadian Pacific entered into an agreement with the Dominion Government under which, in return for a cash subsidy amounting to $3,405,000, or $10,000 per mile, the Company was to build a line from Lethbridge, Alberta, to Nelson, British Columbia, via the Crow's Nest Pass, and to reduce rates to a certain maximum on a number of commodities to and from Western Canada, among which was grain for export. No limitation as to the period was made.

Shortly afterwards, the railways reduced grain rates below the specified level and maintained the reduced rates voluntarily until 1918. The level of operating expenses made this a profitable expedient for the railways. In this latter year the Dominion Government, under the War Measures Act, suspended the application of the Crow's Nest Pass Agreement, and ordered increases in rates to a level higher than was named in the agreement.

With the fall in wheat prices after the War, the case was reconsidered, and in 1922 the Crow's Nest basis was re-established on Canadian Pacific lines affected by the letter of the agreement, as well as on Canadian National lines in competitive territory. This meant discrimination against farmers adjacent to the newer branch lines, and on this ground the case was brought before the Board of Railway Commissioners, which

ruled in 1927 that there should be no discrimination against the more recently built lines, and the Crow's Nest basis was made applicable throughout the Prairie Provinces. Owing to these circumstances, export grain rates in Western Canada are now based solely on the Crow's Nest Pass levels, and are not subject to upward revision by the Board of Railway Commissioners, even though post-war operating costs have never justified such low rates.

The Canadian National, in its evidence before the recent Royal Commission, submitted an exhibit comparing the earnings on its grain traffic with estimated revenues if the grain had been hauled at rates prevailing in the United States. The calculations showed that under American rates, the revenues of the Canadian National from grain traffic for the eight-year period would have been $151,024,000, or 71 per cent, higher than they actually were. The basis upon which this calculation was made was not stated, but there are good grounds for believing that the revenue increase was estimated at a much higher figure than would have been earned if the higher rates had actually been in effect. When he was before the Royal Commission, Sir Henry Thornton expressed a similar idea as a general principle, as follows:

"I think it is a sounder principle, and probably comes to the same thing in the long run, to put the transportation companies of Canada in a position to stand upon their own feet. But I have always said in so far as the Canadian National Railways was concerned that the people could have it one way but not two ways. You either can have low freight rates and more taxes to pay in the way of deficits, or you can have remunerative freight rates and less taxes; but it cannot be done both ways." These views have also been expressed from time to time in speeches by other Canadian National officers.

Conditions affecting rates on grain and other bulk commodities in Canada are different from those in the United States. The statutory Crow's Nest rates are not the only rates that are below the levels in the United States. The differential is general and is attributable to the fact that low freight rates

are essential in Canada to permit the economical movement of the country's products to world markets in face of great natural handicaps. It is not certain, therefore, that the grain traffic would have been sustained in volume under higher rates, and possibly the railways would not, on the whole, have gained appreciably.

It is noteworthy that the Canadian Pacific has operated profitably under the same circumstances in Western Canada, even though the Canadian Pacific has a greater proportion of its mileage in the Prairie Provinces and derives a larger share of its revenues from grain traffic than the Canadian National. The gradients of the Canadian National are generally more favorable in Western Canada than those of the Canadian Pacific, particularly in the mountain territory, where the Canadian Pacific goes through the difficult Kicking Horse Pass and the Canadian National follows the Yellowhead Pass route, which, while longer, has no heavy grades, so that, if anything, operating costs should be higher on the Canadian Pacific.

If the railway problem in Canada could be solved by higher freight rates, it would seem essential to take steps to increase the rates. However, such a way out is impossible and was not entertained by the Royal Commission in its Report. In his evidence before the Commission Mr. Beatty summarized the various features of the freight rate question as follows:

"Our rate situation is such that general blanket heavy increases are scarcely possible, and if they were attempted, the benefits from them we would not hope to receive. We are met on the one side by water competition, which is cheaper than our form of transportation under the present system, and on the other by road competition, which is also cheaper, and both having advantages which the railways do not enjoy. So that factor makes me think that complete relief—some, yes—but complete relief through increase in freight charges is scarcely a possibility.

"And then when we consider the effect of freight rates on the development of Canada through making the cost of distribution easier on the original producer, we must be impressed

with the fact that our scales have been set up with the idea of minimizing the natural effect of distance. It is true we have the lowest freight rates in the world, but we also have the longest distances to the primary markets. These are considerations which have to do with the building up of the country. I do not think we can entirely overlook them and treat freight rates as purely a mathematical problem having no result but to make railways prosperous or otherwise."

Railway men naturally favor higher rates, but in the present situation there is practically unanimity in Canada that higher rate levels would do little to solve the railway problem.

TAXES

Likewise in the tax situation, one cannot seek any mitigation of the Canadian National losses. Railway taxes are materially higher in the United States than in Canada, measured either per mile of line or per dollar of gross revenues. In this connection it should be noted that Canadian lines, having a lower traffic density and serving a sparsely settled country, cannot be expected to contribute taxes to the same extent as do American railroads. Moreover, under prevailing traffic and cost conditions in the United States, railway taxes have become unduly burdensome.

A comparison of taxes on the Canadian National lines in Canada with those of the Canadian Pacific for the nine-year period 1923-1931 is shown in the following statement:

COMPARATIVE STATEMENT OF TAXES, NINE YEARS 1923-31

	Canadian National System	*Canadian Pacific System*
Railway tax accruals	$45,426,397	$47,980,820
Less amount paid in United States	15,555,421	1,650,409
Amount paid in Canada	$29,870,976	$46,330,411
Taxes per mile in Canada	$1,426	$3,022
Taxes per dollar of revenue in Canada	1.5c	2.5c

Despite larger taxes, the Canadian Pacific has been operated profitably, so that the deficits of the Canadian National cannot in any way be attributed to an excess burden of taxation.

APPENDIX TO CHAPTER X

Dominion Outlay for Railway Development[1]

THE participation of the Government of Canada, and the application of its resources to railway development, may, for convenient reference, and also because of its historical interest, be broken into four distinct periods of railway activity.

The first period may be taken as extending from Confederation in 1867 down to about the year 1903. To this period belong the Intercolonial and Prince Edward Island Railways and the Canadian Pacific Railway.

The second period comprises the years extending from about 1903 to 1917-1920. During this period the Canadian Northern and the Grand Trunk Pacific received very substantial backing of the government in the form of guarantee of securities. The National Transcontinental Railway was also constructed entirely at government cost.

The third period begins about 1917-1920, with the collapse of the former privately-owned Canadian Northern, Grand Trunk Pacific and Grand Trunk Systems, due largely to financial difficulties incident to the Great War and to the general interference with established trends by reason of economic reaction to the great conflict. The third period ends with the creation of the present Canadian National system late in 1922, but which may, for historic convenience, be established as of January 1, 1923.

The fourth period may be taken as extending from January 1, 1923, to the present time, during which the properties now comprising the Canadian National Railway system have been operated under one management.

From Confederation (1867) to December 31, 1931, the Dominion Government has expended on all railways, or pledged its credit therefor, an aggregate sum of $2,652,539,-388. By periods this sum was apportioned as follows:—

[1]Quoted verbatim from the Report of the Royal Commission to Inquire into Railways and Transportation in Canada, 1931-2, pp. 86-90.

First Period (1867-1903)		
Roads now comprising Canadian National System	$ 114,886,224	
Canadian Pacific Railway System	91,705,033	
All other roads	3,094,578	
		$ 209,685,835
Second Period (1903-20)		
Roads now comprising Canadian National System	$ 508,646,798	
Hudson Bay Railway	18,352,188	
Canadian Pacific Railway System	12,022,915	
All other roads	5,809,855	
		$ 544,831,756
Third Period (1917-20-23)		
Roads now comprising Canadian National System	$1,287,888,433	
Hudson Bay Railway	2,373,306	
Canadian Pacific Railway System	21,078	
All other roads	479,574	
		1,290,762,391
Fourth Period (1923-31)		
Roads now comprising Canadian National System	$ 576,496,951	
Hudson Bay Railway	28,021,189	
Canadian Pacific Railway	728,469	
All other roads	2,012,797	
		607,259,406
Grand total, cash and credit		$2,652,539,388
The aggregate sum mentioned above was divided as follows:—		
Cash outlay		$1,366,082,181
Liabilities for which the credit of the Dominion is fundamentally the security—		
Canadian National Railway securities guaranteed	$ 970,562,290	
Canadian National securities not definitely guaranteed by Government	305,894,917	
Liabilities of Northern Alberta Railways	10,000,000	
		1,286,457,207
Grand Total		$2,652,539,388
Of this grand total, the railways comprising the Canadian National lines received:—		
Cash		$1,201,461,199
Credit		1,286,457,207
Total		2,487,918,406*

The cash expenditures by the Dominion Government as to railway corporations and systems from 1867 to 1931, showing what had been contributed prior to government ownership

*This sum represents the proportion of Dominion Government outlay which went into lines now comprising the Canadian National railways and should not be confused with the total of $2,669,926,371 given in paragraph 85 of the Commission's report. That paragraph has reference to Canadian National system accounts, and includes interest accrued on government loans less certain adjustments. In it the Canadian National Capital structure is under consideration; in the above historical presentation government expenditure on railway construction and contributions of cash and credit only are taken into account.

and the amount subsequently required, is indicated in the following statement:

RAILWAYS NOW COMPRISING CANADIAN NATIONAL SYSTEM

Canadian Government Railways Group (Direct Payments)—		
Intercolonial Railways and Additions	$ 294,445,172	
National Transcontinental Railway	169,318,185	
		$ 463,763,357
Canadian Northern Railway—		
Prior to Government ownership	$ 61,650,261	
Since Government ownership September 30, 1917 to March 31, 1923	292,554,561	
		354,204,822
Grand Trunk Railway—		
Prior to Government ownership	$ 30,315,957	
Since Government ownership May 1, 1920 to March 31, 1923	107,433,649	
		137,749,606
Grand Trunk Pacific Railway—		
Prior to Government ownership	$ 79,854,134	
Since Government ownership March 9, 1919 to March 31, 1923	42,367,362	
		122,221,496
Canadian National Railway Company—		
Subsidies, etc., to companies now within this group but made prior to Government ownership	$ 4,112,314	
Cash advanced to this company since April 1, 1923, to December 31, 1931, for disbursement to all companies comprising the Canadian National System	119,409,604	
		123,521,918
Total Canadian National Railways Group		$1,201,461,199
Hudson Bay Railway and Terminals		48,746,683
Canadian Pacific System—		
Canadian Pacific Railway Company	$ 79,607,120	
Subsidiaries—subsequent to acquisition by Canadian Pacific Railway	10,486,793	
Subsidiaries—prior to acquisition by Canadian Pacific Railway	14,383,582	
		104,477,495
All other roads		11,396,804
		$1,366,082,181

The security issues constituting the funded debt of the constituent companies of the Canadian National System (including liabilities of ten millions connected with Northern Alberta Railways) are distributed as follows:

Canadian Northern Railway System—		
Guarantees prior to acquisition	$ 71,669,914	
Guarantees since acquisition	66,073,976	
Other securities outstanding	158,973,316	
		$ 296,717,206
Grand Trunk Railway System—		
Guarantees prior to acquisition	....	
Guarantees since acquisition	$ 265,433,142	
Other securities outstanding	51,830,775	
		317,263,917
Grand Trunk Pacific Railway—		
Guarantees prior to acquisition	$ 43,432,848	
Guarantees since acquisition	....	
Other securities outstanding	41,159,826	
		84,592,674
Canadian National Railway Company (since Jan. 1, 1923)—		
Guarantees outstanding	$ 523,952,410	
Other securities outstanding	63,931,000	
		587,883,410
Total		$1,286,457,207

This sum represents the following division as between guaranteed and non-guaranteed issues, for both of which, however, the Government as owner carries ultimate responsibility:—

Guaranteed securities	$ 970,562,290
Unguaranteed securities	305,894,917
Northern Alberta Railways	10,000,000
Total	$1,286,457,207

LAND GRANTS AND PROVINCIAL AND MUNICIPAL AID

In addition to cash and guarantees of securities, immense grants of land were made to railway promoters by Dominion and provincial governments, as follows:—

	Acres
Dominion	31,781,847
Nova Scotia	160,000
New Brunswick	1,788,392
Quebec	2,085,710
Ontario	3,241,207
British Columbia	8,233,410
Total	47,290,566

As between the Dominion and the provinces, and also as between the several railways, this acreage was thus apportioned:—

	Total	Government owned and controlled	Canadian Pacific	All Other Roads
Dominion	31,781,847	5,727,002	24,953,133	1,101,712
Provincial	15,508,719	1,806,215	10,611,846	3,090,658
Total acreage	47,290,566	7,533,217	35,564,979	4,192,370

A word of explanation is necessary as to Dominion land grants to the Canadian Pacific. Under the original contract of that company 25,000,000 acres of Dominion lands were granted. Subsequently, 6,793,014 acres were returned for a cash consideration of $10,189,521. Afterwards further grants were made of 1,710,400, principally to the Souris branch. Subsidiaries now forming part of the Canadian Pacific received Dominion land aggregating 6,139,963 acres, but at the time such lands were acquired by the Canadian Pacific these subsidiaries owned only 2,235,145 of these original grants. The total of the grants which may, therefore, be said to have been received by the Canadian Pacific is 22,152,531 acres.

Dominion and provincial land grants do not, however, complete the story of public aid of investment in Canadian railways. The provinces and also many municipalities assisted the promotion of railway enterprises by cash subsidies and subscriptions to shares. These reached a quite substantial total:—

Cash Subsidies		
Provincial	$ 33,160,615	
Municipal	12,988,128	
		$ 46,148,743
Subscriptions to Shares		
Provincial	300,000	
Municipal	2,425,500	
		2,725,500
Total		$ 48,874,243

The provinces also undertook in certain instances the guarantee of securities. In so far as these relate to railways now forming part of the National system, these guarantees have been met by the Dominion as the issues matured. At Decem-

ber 31, 1931, there remained, however, $72,184,488 of these guarantees which on a strict legal accounting would still rank as liabilities of provincial governments.

Omitting the guarantees last referred to (they already form part of the funded debt due the public as previously dealt with), it will be seen that the total investment in cash or credit of the Dominion, provincial and municipal governments of Canada amounts to $2,701,413,631. Setting a value of one dollar an acre on lands granted, this figure becomes $2,748,-704,197. As there are 42,075 miles of first main track steam railroads in Canada today, it will be seen that the federal, provincial and municipal contribution to the provision and operation of Canadian railway facilities since Confederation has amounted, roughly, to $65,300 a mile.

CHAPTER XI

REPORT OF THE ROYAL COMMISSION ON RAILWAYS 1931-1932

IN 1931 the time was ripe for a thorough appraisal of the railway situation, and it is informative to note that the suggestion for the appointment of a Royal Commission originated with Mr. E. W. Beatty, President of the Canadian Pacific. The way in which this came about was described later by Mr. Beatty as follows:[1] "In 1931 during one of the sessions of the Special Committee of the House of Commons which has annually considered the report and appropriations of the Canadian National Railways, questions were asked which led me to think that the time would be opportune for an enquiry into the whole question of transportation in Canada by an independent tribunal; that much good might result and that at least there would be much information of value to the public as a whole. I had for two years been very apprehensive as to the railway situation. Our traffic had fallen rapidly, our debts had increased and the deficits of the National lines were great. So I conferred with the former President of the National Railways and suggested to him that during the course of his examination by the Committee he might advise such an investigation as I had in mind. He readily agreed and made such a recommendation. It was unanimously adopted by the Committee and later was unanimously approved by the House of Commons." Accordingly, by Order-in-Council dated November 20, 1931, the Government appointed a Royal Commission on Transportation.[2]

[1] *Canada's Railway Problem and its Solution.* An address delivered by E. W. Beatty before the Canadian Club, Toronto, January 16, 1933, p. 9.

[2] The membership of the Commission was as follows: Right Honorable Lyman Poore Duff, Justice of the Supreme Court of Canada, Chairman; Lord Ashfield, Chairman of the Underground Railway, London, England; Sir Joseph Flavelle, Toronto; Beaudry Leman, Montreal, General Manager and Director, Banque Canadienne Nationale; Leonor Fresnel Loree, New York, President of the Delaware and Hudson Railroad; Walter Charles Murray, Saskatoon, President of the University of Saskatchewan; and John Clarence Webster, M.D., Shediac, New Brunswick.

The Commissioners were charged with the duty of inquiring into the whole problem of transportation in Canada, "having regard to present conditions and the probable future development of the country."[3] They were authorized to engage the services of accountants, engineers and other technical advisers, and they had full authority to obtain all information that was pertinent to their investigation. The Commission convened immediately, and during the course of the next nine months it gathered together a voluminous amount of information. Public hearings were held at most of the important cities throughout Canada at which representations from public bodies, labor organizations and other groups and individuals were invited and received. In the course of their journeys, the Commissioners travelled over most of the main line mileage of the Canadian National and the Canadian Pacific, and received throughout their investigation the wholehearted co-operation of the responsible officers of each railway.

Their report was made to the Government on September 13, 1932, and became the basis of the Canadian National-Canadian Pacific Railway Act which was passed by Parliament after exhaustive debate on May 23, 1933. This Act, to be described at a later stage, embodied all of the recommendations of the Commission with minor modifications.

The report covered certain phases of the operations of the Canadian National and the Canadian Pacific railways for the nine years, 1923-1931, particularly relating to the capital expenditures of the two railways during the period, the financial results of their operations and in general the nature of the competitive rivalry existing between the two systems. The entire transportation situation was analyzed, in order to explain the reasons for the large income deficits of the Canadian National and for the weakened financial condition of the Canadian Pacific Railway. Major attention was given to the burdensome effects of excessive capital expenditures and costly operating practices that resulted from the intense competitive rivalry of the two railway systems. The board of directors

[3]Duff Commission Report, p. 5.

and the management of the Canadian National, as well as the Government, were criticized for a lax financial administration of the government system. The report charged in respect to the Canadian National, that political considerations and public pressure led to unwise and unnecessary capital expenditures and that, generally speaking, there was not the same "disciplinary" check upon undue expenditure that attaches to private corporations. Accordingly the recommendations of the Commission were designed (1) to strengthen the administrative control of the Canadian National by substituting a board of three trustees for the existing board of seventeen directors; (2) to secure economies in the operation of both railways by means of co-operative measures which are to be accomplished by voluntary agreements where possible, but which in case of dispute or disagreement are to be determined by compulsory arbitration.

The Commission undoubtedly rendered a valuable service by concentrating attention upon the defects in the administrative control of the Canadian National and upon the real need for curbing the competitive rivalry of the two railway systems, both with respect to their operations and their policies of expansion. Yet in certain important respects the report was deficient and its recommendations inadequate, as will be shown in the following critical summary.

CAPITAL EXPENDITURES

An important section of the report dealt with the capital expenditures of the two railways, amounting to $805,000,000 during the period under review, 1923 to 1931.[4] The principal facts regarding branch lines, hotels and coastal steamships have already been given in a previous chapter, so that further treatment here is unnecessary. The Commission stressed the intense rivalry in branch line construction that developed, particularly in the provinces of Saskatchewan and Alberta. Each railway claimed that part of its branch line program might have been deferred but for the fear that its rival would invade territory strategic to its lines. The natural

[4] *Ibid.*, pp. 19-30.

result of this situation was that "the construction program of one company was responded to by an equal or greater program of construction of the other. The development of this territory did not meet expectations, and the railways now find themselves with additional traffic mileage and an increased burden of capital charge."[5] It cannot be denied that the regulatory control of branch line construction in Canada was defective in that there was no adequate check on the competitive scramble for new territory.

Each railway was strongly criticized for the large increase in its hotel investments during the period. In this respect the Commission said:[6] "An analysis of investments in hotels reflects similar results from competitive conditions to those which prevailed between the two railways in the larger sphere of operations, with practically similar results—the Canadian National steadily increasing its investment despite increasing losses, and the Canadian Pacific adding to its investment to an even greater extent than its competitor, without commensurate return on the investment . . . Whether on the grounds of policy [i.e., to stimulate passenger traffic] or for reasons which may have seemed convincing at the time, the fact remains that very large sums have been invested in hotels which were not justified from any point of view . . . It is a deplorable example of wasteful expenditure of public and private money and one that places a permanent serious financial burden upon both systems." The remaining sections of the chapter on capital expenditures in the Commission's report dealt with the Pacific coastal steamship situation, and the effect of the capital expenditures during the period upon the balance sheets of the two railways. The facts involved and the attitude of the Commission have already been set forth in Chapter IX. There remains to be discussed, in respect to capital outlays, certain significant omissions in the Commission's treatment.

Although the unsound effects of rival expenditures for branch lines, hotels and coastal steamship services were effectively treated in the report, there was no analysis whatsoever

[5] *Ibid.*, p. 21, par. 58.
[6] *Ibid.*, p. 25, pars. 67 and 72.

of the much larger outlays for additions and betterments to roadway and for rolling stock. Considering the powers of the Commission, the voluminous amount of material and the resources at its command, it was to be hoped that it would analyze thoroughly the expenditures and operating policies of the Canadian National Railway. It was but natural that there would be a difference of opinion regarding the necessity for the large amount of money which the Canadian National spent for the physical improvement of its property and for rolling stock. Consequently, it would have been useful to have had an authoritative and impartial analysis of these expenditures. For example, how much of the outlay for improving the property was reasonably needed in the interest of more economical operation? How much of the outlay could be charged to an unreasonable and extravagant attempt to outrival the Canadian Pacific?[7]

Another question of importance particularly in the case of a government railway system was whether or not money was wastefully spent. There was an implied charge of extravagance of this sort against the Canadian National, where the Commission compared the cost of branch line construction by the Canadian National and the Canadian Pacific. It was shown that the average cost per mile of branch line construction during the nine-year period was $32,005 for the Canadian Pacific and $47,872 for the Canadian National.[8] The excess cost in the case of the Canadian National amounted to an additional interest charge of $800 per mile for the 1,895 miles of line constructed. The implication of extravagance was contained in the assertion that a majority of the newly constructed lines of the two systems were built in similar territory for like purposes. In view of the size of the difference in the comparative cost of branch lines, the Commission should have presented a fuller analysis to enforce without a doubt the implied charge of extravagance against the Canadian National.

[7]In that connection it should be recognized that the Canadian Pacific was in a position to keep one step ahead of its competitor, which stimulated the Canadian National to go further in improving its properties than was profitable or desirable.

[8]*Ibid.*, p. 21, par. 54.

There was no railway project during the nine-year period which gave rise to more controversy than the Montreal Terminal scheme of the Canadian National Railways. Yet for some reason or other it was completely ignored in the Commission's report. This, despite the fact that nearly $15,000,000 had already been spent on the plan and further work on it had been indefinitely suspended.

CAUSES OF EXCESSIVE CAPITAL OUTLAYS

In the report the blame for excessive capital expenditures during the period by both railways was laid principally to uncontrolled competition. However, in several passages the Commission severely criticized the administration of the Canadian National, as well as the Government of the day, leaving the inference that the private railway was forced to protect its interests in the face of the aggressive and unrestrained program of expenditures of the government railway, backed as it was by the public purse. In this connection the Commission reported:[9] "Following upon the consolidation of many lines into the Canadian National system in 1923, the railway has been energetically administered, and has deservedly won approval by its success in welding together the various working forces of the separate companies in the consolidated system. Running through its administrative practices, however, has been the red thread of extravagance. The disciplinary check upon undue expenditure, inherent in private corporations because of their limited financial resources, has not been in evidence. Requisitions of the management have been endorsed by governments, and successive parliaments have voted money freely, if not lavishly. Within the railway organization there has been freedom in expenditure, and encouragement in plans for expansion and extension of services which were inconsistent with prudent administrative practice. The administration failed to realize that this country, with the greatest railway mileage in the world in relation to population, could not afford further capital and maintenance expenditures for unwarranted branch lines, for *de luxe* services,

[9] *Ibid.*, p. 13, pars. 32, 33 and 34.

for unrequired hotels, for the building of ships in competitive service to be shortly abandoned; and generally, for costly adventures in competitive railways out of proportion to the needs of the country." Again, after referring to the liberal financial support which the Government gave to the Canadian National, the Commission said:[10] "As a result, the Canadian Pacific Railway Company, the largest taxpayer in Canada, has been subjected to the competition of publicly-owned and operated railway lines, supported by the financial resources of the country." Also embodying the same idea is the following:[11] "Challenged by the State-subsidized National system, the Canadian Pacific felt compelled, in the defense of its own interests, to meet the challenge." Thus the general position taken by the Commission was a vindication of the Canadian Pacific Railway Company. Needless to say the management of each railway has taken the position that its own capital expenditures were either economic or protective as against the outlays initiated by the other railway.

There is no doubt that the Commission rendered a valuable service by its emphasis on the unsoundness of unrestrained rivalry between powerful railway corporations. Both railways by their excessive expansion have weakened their financial position. In the case of the Canadian National the effect has been to postpone indefinitely the time when it will be able to earn enough to cover its increased interest requirements and begin to pay a return to the Government on its large investment in the property.

DUPLICATION OF RAILWAY LINES

Brief attention was given in the report to the duplication of railway mileage in Canada.[12] The discussion, however, was of a very general nature, and no specific recommendations for the abandonment of part of the excess mileage were made by the Commission. It was shown that some of the parallel mileage within the Canadian National System has already been

[10] *Ibid.*, p. 12, par. 25.
[11] *Ibid.*, p. 43, par. 114.
[12] *Ibid.*, pp. 41-2.

eliminated. The need for rails during the World War brought about the unification of the Canadian Northern and Grand Trunk Pacific lines for a distance of 213 miles between Edmonton and Red Pass Junction in the Rocky Mountains. Later 144 miles of Canadian Northern lines were lifted between Napanee and Toronto, "where the Grand Trunk Railway had been the pioneer road only to find its territory invaded by the Canadian Northern and then by the Canadian Pacific Lake Shore line."[13] As between the Canadian National and the Canadian Pacific there is considerable duplication of closely parallel lines. Then there is the problem of lines which are functionally duplicative as distinct from parallel lines. This applies particularly to bridge lines such as the National Transcontinental from Moncton, New Brunswick to Quebec City and the three lines north of the Great Lakes.

Despite the importance of the question of abandonment proposals, less than a page was devoted to this subject in the Commission's report.[14] This omission was not due to a lack of material upon which to base certain conclusions, for according to the Commission, the Canadian Pacific presented a plan for the abandonment of certain sections of railway involving several thousand miles of track. Among the lines that would be dispensed with under its plan were many short sections of both railways in all parts of the Dominion which, conceivably, might be abandoned and running rights secured over one or other of the two systems. Similarly, the Canadian National analyzed the local and general features of the abandonment of certain sections of its lines, emphasizing the following considerations:—

(1) Relative operating merits of the alternative lines as through routes.
(2) Traffic carrying capacity of the remaining through routes.
(3) The natural resources tributary to the section proposed to be abandoned.
(4) The extent of settlement tributary to the section.

[13] *Idem.*, par. 104.
[14] *Ibid.*, p. 42.

(5) The wealth production tributary to the section.
(6) Railway economy resulting from abandonment.
(7) Cost of alternative highway transportation facilities if feasible.
(8) Compensatory cost to industries and settlers for severance of communication.

As a result of this analysis the Canadian National concluded that abandonment of railway lines in Canada should be limited to the elimination of duplicating lines which closely parallel each other, and that wholesale abandonment of lines and duplicative through routes would be false economy. However, according to the Canadian National some saving could be effected by concentrating all the through business on the most suitably located and economically operated route.

The reason for the difference between the abandonment proposals of the Canadian National and those of the Canadian Pacific was that the ideas of the Canadian National were in contemplation of the maintenance of competitive railway operation, while the views of the Canadian Pacific were based on what could be accomplished if the railway mileage of the two companies were unified for operating purposes. This fact was not brought out by the Commission. The importance of the question warranted a comparative analysis of the abandonment proposals with appropriate recommendations.

PROBLEM OF LIGHT TRAFFIC LINES

A valuable section of the report, prepared under the direction of Commissioner Loree, dealt with the traffic density of all the railway lines in Canada.[15] A traffic density map was prepared which showed the number of net revenue and company ton miles of freight per mile of line moved in each direction over every railway division in the country. Many thousand miles of line were thus indicated to have a very small volume of traffic. There was also a diagram which showed the number of miles of railway that could be classed, (a) as heavy traffic lines, (b) as medium traffic lines, and (c) as light traffic lines.

[15] *Ibid.*, pp. 32-8 and 40-1.

The first category included lines carrying annually in excess of 2,750,000 net ton miles of freight per mile of road; the second, the lines carrying less than 2,750,000 and more than 250,000 net ton miles; the third, the lines carrying less than 250,000 net ton miles per mile of road annually. It was shown that the heavy traffic divisions constitute but ten per cent of the total railway mileage and carry fifty per cent of the net ton miles; the medium traffic divisions constitute forty-eight per cent of the total mileage and carry forty-five per cent of the net ton miles; and the light traffic divisions constitute forty-two per cent of the mileage and carry less than five per cent of the ton mileage of freight traffic. In the following table the Canadian National and the Canadian Pacific were compared with each other as to traffic density conditions on their Canadian lines:

Miles of Road and Net Ton Miles, by Groups

Traffic Density Group	Miles of Road		Net Ton Miles (Millions)	
	Number	*Per cent*	*Number*	*Per cent*
Heavy				
Canadian National	1,963	9.11	8,580	46.91
Canadian Pacific	1,589	9.66	7,884	50.52
Medium				
Canadian National	10,332	47.97	8,800	48.10
Canadian Pacific	8,801	53.53	7,063	45.26
Light				
Canadian National	9,245	42.92	912	4.99
Canadian Pacific	6,053	36.82	659	4.22
Total				
Canadian National	21,540	51.2*	18,292	49.0*
Canadian Pacific	16,443	39.1*	15,606	41.8*

*Refers to per cent of total Canadian mileage.

The Canadian National has relatively more of its mileage in the light traffic density group than the Canadian Pacific. Further information concerning the traffic density of the lines of the Canadian National and the Canadian Pacific was presented in a series of diagrams. Each diagram showed the traffic density conditions and the mileages involved for a given region for each railway. For example, in the Atlantic region extending from the Atlantic coast to Levis (opposite Quebec city) the Canadian National has 1,470 miles of medium traffic density and 1,913 miles of light traffic density. The traffic

density in the medium traffic group averages 1,041,000 ton miles per mile of line, and in the light traffic group 66,400 ton miles per mile of line. In the same region the Canadian Pacific has 552 medium traffic miles and 1,044 light traffic miles of line. The traffic density in the medium traffic group averages 837,000 ton miles per mile, and in the light traffic group 131,000 ton miles per mile. The Commission summarized the traffic density situation as follows:[16] "Excess mileage coupled with low traffic density has contributed greatly to the problem under consideration by this Commission . . . The light traffic divisions constitute 42 per cent, or 17,658 of the 42,075 miles of railway in the Dominion. Were it possible to abandon this economically unsound mileage, the mileage remaining and now carrying 95 per cent of the net ton miles, would be about 58 per cent of that now in existence."

OPERATING EFFICIENCY OF THE TWO PRINCIPAL RAILWAYS

Despite the importance of a thorough analysis of the operating efficiency of the Canadian National Railway System in comparison with the Canadian Pacific, this subject was inadequately treated in the report of the Commission. A tremendous amount of money was spent during the nine-year period to improve the operating efficiency of both roads. In addition the Canadian National expended large sums to improve its competitive position, and the Canadian Pacific followed suit in order to maintain its advantage. For a time, under buoyant business conditions, the net railway operating income of the railways increased, but fixed charges were mounting rapidly. Without an appropriate analysis, one can not determine how much the improved showing was effected by (1) the normal operation of the principle of decreasing cost (with increased traffic), (2) increases or decreases in railway rates, (3) increases or decreases in wages and the prices of materials, and finally (4) increased efficiency of operation. A competent railway economist, having available the mass of information that was at the command of the Commission, could have made such an analysis without great difficulty. To be sure, it would have

[16] *Ibid.*, pp. 40-1, pars. 100 and 102.

been necessary to make certain arbitrary assumptions in estimating the effect of the operation of the principle of diminishing cost. Yet even a theoretical judgment, particularly if it were supplemented by other operating indices, would have helped to clear up the uncertainty and doubt concerning the operating performance of the Canadian National in the minds of the Commissioners themselves. The indeterminate nature of the Commission's thoughts concerning the actual relation between the huge capital outlays of the Canadian National and its improved operating performance was shown by the concluding sentence in the section on operating efficiency:[17] "Whether the improvement actually secured has been commensurate with the expenditure involved is a moot question."

The Commission's account of the operating results of the two carriers was so very brief as to be of comparatively little value.[18] While it is true that a great deal of data was filed with the Commission, some of which was compiled by the railways and some by the Commission's own experts, the published report contained little elaborative material beyond a few generalizations. Tables were presented showing the total operating revenues and expenses of each system for the years 1922, 1928 and 1931 and these figures were also expressed in terms of index numbers. There was also an analysis of the sources of revenue of both railways and a classification of their freight tonnage by commodities. These, together with a comparison of fuel performance and a table of operating ratios, completed the factual presentation of the comparative operating results of the two railways.

The Commission admitted that there were factors that adversely affected the Canadian National in comparison with the Canadian Pacific. "The officers of the National system operate two great railroads which were constructed as competitors, with consequent duplication of tracks, shops and facilities, a condition which the co-ordination which has gone on progressively for a decade has not yet entirely overcome. There are also considerations of lighter traffic and shorter average haul, with

[17] *Ibid.*, p. 49, par. 136.
[18] *Ibid.*, pp. 46-50.

consequent greater terminal and yard expenses in the case of the National lines. The Canadian Pacific was constructed and developed as a single unified system of railways and thus avoided many of the disadvantages which apply to the Canadian National system."[19]

The general conclusion of the Commission was stated in the following passage:[20]

"If the level of expenses of the Canadian Pacific is to be accepted as measurably determining what the relative operating charges of the National lines should be, the information placed before us by the experts, who have been engaged in correlating the statistical data of the two systems, indicates that the operating costs of the Canadian National system are in certain particulars much higher than they should be. . . . An analysis and comparison of accounts of both companies, with due regard to the considerations put forward by the Canadian National as adversely affecting their operations, do not, in our opinion, justify the very considerable differences in the operating ratios of the two systems."

COMPETITIVE RIVALRY

In the section dealing with the element of competition, there were references to views of officers of the Canadian Pacific and the Canadian National that are of interest, since they embodied two different solutions of the problem of excessive competition. In the words of the Commission:[21] "The president of the National System was quite frank in his declaration that, since the consolidation of the Canadian National in its present form, it and the Canadian Pacific had proceeded in the way habitual to all railways to compete with one another. It had remained for the depression, which set in during the autumn of 1929, to point the way to a saner course. He indicated that competitive construction between the Canadian National and the Canadian Pacific had no doubt been due to the lack of a central authority to control such tendencies, and suggested that the time had

[19] *Ibid.*, p. 50, pars. 139-140.
[20] *Ibid.*, pp. 49-50, pars. 135 and 141.
[21] *Ibid.*, p. 43, par. 112.

come when control of such matters should be set up if the railways were to continue as separate entities." Then there was the statement of the Canadian Pacific:[22] "that during the decade, 1920 to 1930, there had been constantly increasing competition between the two railways, and that the extent and intensity of that competition was not warranted by the present-day traffic and earning conditions. Recognizing that, the two companies had been co-operating to reduce costs where joint action was desirable and possible, but it was the opinion of the Canadian Pacific that there was a limit to which competing systems could go in acts of co-operation so long as they remained distinct and independent units under different ownership."

Both railways were criticized by the Commission for the intensity of the competition that developed in the passenger service, at a time when the volume of passenger traffic was "sharply declining" and when "there was developing an external competition of revolutionary import arising from highway traffic."[23] The Commission rightly expressed the opinion that this should have been regarded as of sufficient importance to have warranted co-operative action, and to have prevented the continuance and extension of luxurious and duplicative passenger services. "Not only was there duplication in operation of passenger trains, but practically identical schedules were adopted when a 'staggered' service would have been better adapted to serve the public convenience. These wasteful practices extended to house delivery of tickets, the multiplication of city ticket offices, to radio activities, costly advertising, and the establishment of a standard of passenger travel quite beyond the requirements of the country."[24] Under the circumstances it is not difficult to agree with the Commission that "now in the interests of both railways and of the taxpayers of Canada there must be a cessation of aggressive and uncontrolled competition."[25]

[22]*Idem.*, par. 111.
[23]*Ibid.*, p. 43, par. 113.
[24]*Idem.*
[25]*Idem.*, par. 114.

POLITICAL AND PUBLIC PRESSURE

It will be recalled that the Drayton-Acworth report in 1917 stressed the importance of keeping the government railways free from governmental interference. As a means to that end it was proposed that the government railways be incorporated and placed under the control of a permanent and self-perpetuating board of trustees. The Government of the day declined to follow that plan of organization and adopted in its place the usual corporate form of a board of directors, holding office from year to year. The Canadian National Railway Act provided for a maximum number of seventeen directors, appointed by the Cabinet. The President of the Canadian National System was appointed by the Government rather than by the board of directors. "Under the circumstances," said the Commission,[26] "the directors' functions have been in practice nothing more than advisory. It would seem that they generally gave formal approval to programs of expenditures which they appeared to regard as the main concern of the president and the Government. This left the railway open to political influence, and to public pressure exerted by communities and by associations of business and labor interests. Of direct political interference by ministers and members of Parliament in the detail operations of the railway, we were assured by the officials there was little or none. It was in the larger sphere of policy that political considerations led to unwise and unnecessary capital expenditures, the result of which was to create an atmosphere in which the ordinary principles of commercial operation of the railway were lost sight of."

In this respect the Commission quoted the following views of the President of the Canadian National Railways:[27]

"One of the inherent disadvantages of any state-owned enterprise such as the Canadian National Railway, is the problem of political interference and one might also add, public pressure. In making this statement I wish it distinctly understood that I imply no criticism of any party or any government,

[26] *Ibid.*, p. 51, par. 145.
[27] *Idem*, par. 147.

present or past. I merely state a fundamental and universally admitted condition. The leaders of all political parties and the people of Canada as a whole are a unit in their desire to prevent political invasion of the Canadian National Railway. But the plain fact is that, irrespective of such wishes and desires, the problem presents difficulties beyond the control of our leaders, be they ever so patriotic or high minded. After all, in any form of popular government it must be accepted as axiomatic that the business of government is politics and irrespective of whether one likes it or not, politics is something with which a government must reckon in all its activities."

Quite another angle to the problem was developed by the President of the Canadian Pacific in his testimony before the Commission when he said:[28] "To my mind the worst kind (of political influence) comes from the political attitude of men in publicly-owned institutions. Possibly they are not conscious of it, but they become politically-minded; their policies and actions have a political tinge, and that, from my standpoint, is more serious as representing the attitude of the corporation than the isolated act of a member of parliament who tries to get a man employed."

The Commission cited the year 1929 as "a striking example of what political and public pressure, presumably, were able to accomplish."[29] In that year Parliament authorized a huge budget of expenditures for the Canadian National amounting to $192,441,997. Annual interest on funded debt of the system in the hands of the public, which, at the end of 1928 was $41,810,880, increased to $55,587,145 at the end of the year 1931, due largely to the expansion policies of 1929. Pointing to the scale upon which branch line extensions and acquisitions, as well as hotel expenditures, were made, and railway and steamship services duplicated, the Commission said:[30] "it is impossible to avoid the conclusion that the Board of Directors and the management of the National Railways were amenable to

[28] *Idem,* par. 148.
[29] *Ibid.,* p. 52, par. 149.
[30] *Idem,* par. 154.

political influence and pressure, which it would have been in the public interest to have withstood."

CONTRIBUTORY CAUSES OF THE RAILWAY PROBLEM

The factors responsible for the railway problem in Canada were summarized by the Commission as follows:[31]

(1) The over-development of railways beyond the immediate needs of the country.
(2) Aggressive and uncontrolled competition between two nation-wide railway enterprises, a competition the more disastrous in that one of the competitors was publicly owned and supported by the full resources of the Dominion.
(3) The reactions of the world trade depression which began in 1929 and has progressively increased in its severity with each succeeding year.
(4) Competition from other forms of transport, notably road transport.
(5) Inelasticity of freight rates and railway practice generally which prevents prompt action in the meeting of falling revenues and dealing effectively with competition from other forms of transport.
(6) Contractual arrangements with labor organizations which set up a rigid wage scale and inflexible labor practices generally.
(7) The special disabilities of the Canadian National Railways due to:
    (a) the assumption, through Government action, of liabilities of insolvent railway systems for reasons of national credit;
    (b) large capital expenditures for improvement of the physical condition of the absorbed systems;
    (c) political and community pressure on the management arising out of direct government control.

[31] *Ibid.*, p. 53, par. 155.

COMPETITION FROM OTHER FORMS OF TRANSPORTATION

(a) *Highway Transportation*

Highway transport was treated briefly in the text of the report and at greater length in a separate appendix.[32] It was shown that during the period under review, 1923 to 1931, registration of motor vehicles (exclusive of motor cycles) doubled in Canada. In 1931 there were 1,636 motor coaches, 165,855 motor trucks and over 1,000,000 passenger automobiles. Thus the automobile has become a great and increasing factor in transportation in Canada. Nevertheless the loss to the railways in passenger traffic has not been as great as it has been in the United States, mainly because of longer distances over which railway passengers are carried and for climatic reasons. According to the Commission, the railways estimated that, if there had been no competition from the passenger automobile and motor coach in the year 1929, passenger earnings would have been greater by $17,000,000. The motor coach was credited with less than $3,650,000 of this loss and the private passenger automobile with the remainder. The Commission pointed to the fact that the completion of the Trans-Canada Highway, then under construction, and of trunk line highways in the various provinces could not but have an adverse effect on railway passenger revenues. "The economical range of operation of the motor coach in Canada, now estimated to be about 100 miles, is likely to be extended, and it would seem that there is a progressive and continuing loss of passenger traffic to be faced by the steam railways. if the present activities in provincial road building are continued."[33]

From 1923 to 1931 there was a three-fold increase in motor trucks in Canada. The number of common carrier and contract carrier trucks was relatively small, being negligible in all provinces except Ontario and Quebec. In Ontario they comprised 5.5 per cent of all trucks in 1931 and in Quebec about 18 per cent. Some attempt was made to estimate the effect of

[32] *Ibid.*, pp. 54-7 and Appendix II, pp. 93-108.
[33] *Ibid.*, p. 96.

truck operations on railway revenues, on the basis of figures prepared by a Joint Committee of the Railways. The Commission felt that the estimated loss of $24,000,000 in freight revenues in 1930 was too high, but even if this amount were reduced to $20,000,000 the loss was very considerable and of great importance to the future of the railways in Canada. It was pointed out that if the railways should lose a large part of their profitable short distance traffic to the roads, a readjustment of the whole freight rate structure might be necessary, with a possible increase in the rates charged for the long distance and heavy traffic.

In the opinion of the Commission the division of functions between the highway and the railway will not best be obtained through the arbitrary action of governments, but rather through the efforts of those engaged in the transport industry. "By concentrating less on mutual competition and by turning their energies to the co-ordination of the services they provide, a properly co-ordinated system of transport will be evolved. In our view the true function of road transport, in such a co-ordinated system, as auxiliary and complementary to the steam railways, would appear."[34] According to this theory the railway would assume the main burden of the carriage of goods over distances exceeding fifty miles and the trucks would operate as collectors and distributors of freight.

Because the regulation of road transport falls within the exclusive jurisdiction of provincial authorities, the Commission deemed it inadvisable to make any specific recommendations with respect to this problem. It did, however, suggest that there should be a joint conference of Federal and Provincial Government representatives to examine the question of the regulation and taxation of motor vehicles "with a view to equalizing the conditions under which road and rail transport is carried on, and to securing uniformity throughout the Dominion."[35] The taxation of motor vehicles, including the tax on gasoline, should reflect a fair proportion of the cost of providing and maintaining the highways. "A fair proportion

[34] *Ibid.*, p. 56, par. 166.
[35] *Idem*, par. 167.

would, in our opinion, be equivalent to two-thirds of the total cost in respect of highways in urban areas, while in the more undeveloped districts the proportion might be increased . . . [and] so adjusted as to fall with greater severity upon the heavy long distance traffic."[36] A further suggestion was made which seems to conflict with the view taken earlier that the functions of the motor vehicle should not be restricted arbitrarily by government regulation. This was the recommendation that the proposed joint conference should seriously consider "the institution throughout the Dominion of a uniform system of licensing (in addition to the existing licensing for revenue purposes) of road passenger service vehicles and motor vehicles used for the conveyance of freight, whether operated as common carriers, contract carriers, or used exclusively for the conveyance of the freight of their owners."[37] Under such a system, according to the Commission, a license should only be granted to common carriers of passengers and freight where it can be proved to the satisfaction of the licensing authority that the service rendered, or proposed to be rendered, is in the public interest. The criterion that should be followed in granting or withholding a license for a truck used by an owner in his own business was not touched upon by the Commission, although the suggestion was made that trucks might be licensed only for operations within reasonable distances of manufacturing and distributing centers.[38]

(*b*) *Aviation*

Three short paragraphs were devoted to this subject in the Commission's report. These pointed to the fact that aircraft will play an increasingly important part as an agency of transport in Canada on account of the physical and geographical characteristics of the country, the sparsity of population and the

[36] *Idem*, par. 170.
[37] *Idem*, par. 169.
[38] In December 1933, the Dominion Government followed the recommendation of the Commission by organizing a joint conference of provincial government representatives under the chairmanship of the federal Minister of Railways, for the purpose of agreeing upon a program of regulation of highway transportation.

long distances between the centers of population. But due to the infancy of the industry it was felt too early to make any specific recommendations, although the Commission suggested that the Dominion Government should keep in close touch with the present and future development of air transport in Canada. The Commission noted with favor the fact that the two principal railways have an investment in one of the largest aviation undertakings in the Dominion which "may well prove to be the foundation of a proper co-ordination between the two agencies of transport."[39]

(c) Waterways

In view of the proposed deepening of the St. Lawrence waterway the remarks of the Commission on the competitive effects on Canadian railways of the Great Lakes-St. Lawrence waterway route are significant. This great waterway, for eight months of the year, is already an exceedingly important factor in Canadian transportation. During the navigation season it has practically all of the eastbound export grain traffic from the head of the Lakes to the lower lake ports, and a considerable portion of the traffic of the eastern and central regions in bulk commodities such as coal, iron ore and cement. In 1929 the total traffic passing through the Canadian and United States locks at Sault Ste. Marie amounted to 92,617,000 tons. In normal times the annual traffic through these locks is greater than the combined traffic through the Panama, the Suez, the Kiel and the Manchester ship canals. On the great lakes there are scores of vessels of more than 600 feet in length and of 60 and 70 feet beam, some capable of carrying in a single load, 17,000 tons, or 566,666 bushels of grain. "The completion of the new Welland ship canal has admitted these large upper lake freighters to Lake Ontario and the upper St. Lawrence waters, and only one hundred miles of river remain to be dealt with to completely modernize the Great Lakes-St. Lawrence route from the ocean to the heart of the North American continent."[40]

[39] *Ibid.*, p. 57.
[40] *Ibid.*, p. 58, par. 179.

It is important to note the conclusion of the Commission that the competition of water-borne traffic has not been an important factor in causing the present difficulties of the railways, and that it does not seem probable that the developments under way in connection with the Hudson Bay route and the deepening of the St. Lawrence canals will seriously prejudice the position of the Canadian railways. Railway transportation, in so far as the movement of grain and bulk commodities is concerned, has been largely adjusted to the competition of the waterway. "The railways carry to and from the head of the lakes and to and from the lower lake ports. The movement of grain in particular is dependent on low inland water transport, and the fortunes of the railways themselves in Western Canada are dependent upon the ability of the grower to place his product at low cost at ocean ports. In this movement to the eastern coast the inland waterways are a necessary part."[41] It was pointed out that the further development of the St. Lawrence, whereby package freight may pass from Montreal direct to the head of the Lakes without transhipment may eventually make further inroads into the all-rail haul from East to West, but in the case of much of the package freight movement, time is an essential element, and the railways should be able to hold a large share of this movement against their slower competitor.[42]

FREIGHT RATES

On account of the depressed condition of industry, the Commission decided that it would be best to refrain from making recommendations with respect to freight rates. However, it expressed the view that even under more favorable circumstances the financial position of the railways may be such as to necessitate an investigation of the reasonableness, both to the railways and their customers, of the existing freight rate structure. "In determining what is fair and reasonable to the railways," said the Commission, "regard should be had *inter*

[41] *Ibid.*, p. 59, par. 183.
[42] *Idem*, par. 186.

alia to the cost (including the remuneration of the capital invested) of providing these services."[43]

PHYSICAL DISABILITIES OF THE CANADIAN NATIONAL

Nothing further was said by the Commission regarding the excessive capitalization of the Canadian National due to the assumption, by Government action, of the liabilities of insolvent railway systems, but special attention was called to the increase in capitalization and overhead charges arising out of the expenditures incurred in improving the physical condition of the properties. Thus it was shown that from 1917 to 1922 the companies now comprised in the Canadian National System spent $222,547,181 on capital account in completion and improvement of their lines. In the nine years 1923 to 1931, there were expended for improvements and betterments to roadway, for rolling stock and on lake and river services and the Montreal Terminal scheme, but excluding all branch line construction, $304,551,249. "In the result there emerged an efficient transport system affording a service of high standard and with a loyal and enthusiastic staff of officers and employees, but the price was heavy. . . . The introduction of new capital in so large a volume, with every dollar carrying liability for interest from the moment it was expended, would have caused in itself a difficult financial position for the railway, even if there had been no depression in business."[44]

RECOMMENDATIONS OF THE COMMISSION

After briefly considering and rejecting proposals for a temporary or permanent amalgamation of the two railway systems, the Commission outlined the following principal conclusions which formed the basis of its recommendations:[45]

(1) The identity of the two railways should be maintained.

[43] *Ibid.*, p. 60, par. 189.
[44] *Ibid.*, p. 61, par. 194.
[45] *Ibid.*, p. 63, par. 202.

(2) The management of the National Railways should be emancipated from political interference and community pressure.
(3) Machinery should be provided for co-operation between the two systems for the elimination of duplicate services and facilities and the avoidance of extravagance.
(4) Economies should be initiated to bring the burdens of the national system within reasonable dimensions and effectively check extravagant and costly operation.
(5) There should be reasonable protection for the privately-owned undertaking against arbitrary action by the publicly-owned undertaking which might unfairly prejudice the interests of the former.

A. Recommendations concerning the Canadian National Railways.[46]

(1) *Trustees*

In place of the existing board of directors there should be appointed by the Governor-in-Council three trustees with full power and authority to administer the properties. Vacancies among the trustees should be filled from a panel of eight named by the remaining trustees, and trustees should be eligible for re-election. One of the trustees should be named as chairman with tenure of office of seven years. The terms of the other trustees should originally be for differing periods less than seven years in order to prevent them expiring on the same date. The trustees "should be persons of proved business skill and capacity; the chairman in particular should have financial, administrative and executive ability of a high order. On points of integrity and ability involved in these qualifications, there should be no possibility of doubt in the case of any appointee. The chairman should give his whole time to the duties of his office. All trustees should be paid adequately, the chairman in particular should receive a salary commensu-

[46] *Ibid.*, pp. 63-8.

rate with the high responsibility with which he is charged, and the special qualifications he must be assumed to possess. A majority of the trustees should govern its decisions, subject to this qualification that the chairman must be a member of any majority."[47]

(2) *Chief operating officer*

The chief operating officer of the system with the title of President should be appointed by the trustees and should be responsible to them and not directly to the Government or Parliament. The exact extent of his authority should be covered by regulations or by-laws to be made by the trustees.

(3) *Budget requirements of the Canadian National*

The annual budget of the railway should be under the control of the trustees. Amounts required for income deficits, including interest, for capital and for refunding, should first be submitted to the Treasury Board of the Government for its approval and presentation to Parliament by the Minister of Finance. The Commission also recommended that sums required to meet deficits including interest payments should be voted by Parliament, and not raised by the issue of railway securities as has been done in recent years.

(4) *Annual report to Parliament*

A report to Parliament by the trustees should be made annually, and should set forth in a summary way the results of operations and the amounts expended on capital account, brought into comparison with the authorizations made by Parliament, so that the exact position shall be placed before Parliament.

(5) *Audit*

"A continuous audit of the accounts of the System should be made by independent auditors appointed by Parliament from

[47] *Ibid.*, p. 64, par. 204.

a list drawn up by the trustees and they should make a report to Parliament, calling attention to any matters which in their opinion call for remarks. In view of the report of the auditors no examination of detailed accounts of the System should be necessary by a parliamentary committee. For the purpose of supplying necessary information to Parliament the attendance of the trustees might be necessary. In the interests of discipline and to prevent prejudice to the relations that should prevail between trustees and the staff, we earnestly recommend that officials of the company in charge of operations should not be asked to appear for examination."[48]

B. Co-operation between the railways

The Commission recommended that a statutory duty should be imposed upon the trustees of the Canadian National and the board of directors of the Canadian Pacific to "adopt as soon as practicable such co-operative measures, plans and arrangements as shall, consistent with the proper handling of traffic, be best adapted to the removal of unnecessary or wasteful services or practices, to the avoidance of unwarranted duplication of services or facilities and to the joint use and operation of all such properties as may conveniently and without undue detriment to either party, be so used."[49] To carry out this injunction to co-operate, the board of trustees of the Canadian National should meet at regular intervals with a similar number of directors of the Canadian Pacific.

Constitution of arbitral tribunals

For the purpose of settling disputes concerning the desirability of any co-operative measure or for settling the details of any co-operative arrangement, the Commission recommended that an arbitral tribunal composed of the Chief Commissioner of the Board of Railway Commissioners and one representative from each of the two railways, be set up for each occasion. At the request of either railway and on matters of

[48] *Idem*, par. 208.
[49] *Ibid.*, p. 65, par. 211.

major importance, provision should be made for the appointment of two additional members by the President of the Exchequer Court of Canada.

The powers of the arbitral tribunal may be invoked by either railway or by the Dominion or any provincial government. No order by a tribunal, which involves the doing of any act which requires the assent or approval of the Board of Railway Commissioners or where in the opinion of the Chief Commissioner the public interests involved are of sufficient importance to warrant it, shall be valid without the concurrence of the Chief Commissioner and his formal written assent. In the event of conflict between the Board of Railway Commissioners and the arbitral tribunal, the order or decision of the arbitral board shall prevail.

Jurisdiction of the arbitral tribunal

The Commission outlined the subject matters over which an arbitral tribunal might have jurisdiction as follows:

(1) Joint use of terminals.
(2) Running rights and joint use of tracks where there are actual or functional duplications; or where such may be avoided.
(3) Control and prohibition in respect of the construction of new lines and provision of facilities and additional services where no essential need of the public is involved.
(4) The joint use of facilities where this would promote economy or permit the elimination of duplicative or unremunerative services or facilities.
(5) Pooling of any part or parts of freight traffic or of passenger traffic.
(6) Things necessarily incidental to the above enumerated matters.

The Commission recommended that there shall be no appeal to any court in Canada from any decision of the arbitral tribunal on any question of law or fact, except as to a question of law involving the jurisdiction of the arbitral tribunal, in

which case there shall be an appeal to the Supreme Court of Canada, by leave of a judge of that court. Finally it was recommended that the first paragraph of section 52 of the Railway Act, which empowers the Governor-in-Council to vary or rescind any order or decision of the Board of Railway Commissioners, should not apply to the arbitral tribunal.

Ancillary services

The Commission expressed its opinion that the Canadian National and the Canadian Pacific should "formulate and agree to schemes which will permit of the working in harmony of those ancillary services [such as hotels, telegraph systems and express services] which are now operated competitively."[50] The meaning of this suggestion is not altogether clear. It may simply embrace the idea of a less aggressive competitive rivalry or it may involve joint working of these services.

Conclusions

In concluding its report, the Commission stated that while all of its members concurred in its recommendations, "some members would have preferred a plan which would have established a complete dissociation of the Government of Canada from the responsibilities of competitive railway management or of any direct interest therein."[51]

The report closed with the following "serious note of warning" to the people of Canada:[52] "Unless the country is prepared to adopt the plan we have proposed, or some other equally effective measures, to secure the efficient and economical working of both railway systems and thereby not only reduce the burden on the federal treasury but improve the financial position of the privately-owned railway, then the only courses that would be left would be either to effect savings in national expenditures in other directions, or to add still further to the burdens under which the industries of the country are

[50] *Ibid.*, p. 67, par. 222.
[51] *Idem*, par. 225.
[52] *Idem*, par. 226.

suffering by the imposition of yet further taxation. Failing the adoption of one or other of these courses, and there are obvious limits to their application, the very stability of the nation's finances and the financial credit of the Canadian Pacific Railway will be threatened, with serious consequences to the people of Canada and to those who have invested their savings in that railway."

CRITICAL ESTIMATE OF THE DUFF COMMISSION REPORT

In many important respects, the report of the Duff Commission is a valuable document. By its emphasis, (1) on the unsoundness of the prevailing rivalry between the Canadian National and the Canadian Pacific and (2) on the defects in the administrative control of the government system, the report has concentrated attention on the crux of the railway problem in Canada. As pointed out earlier, one of the weaknesses of the report was that certain important conclusions of the Commission were stated without sufficient elaboration of the reasons for the Commission's views.

If the competitive operation of the Canadian National is to be continued, there is no doubt that a change in the principles of administering the System and in its relations to the Government is of paramount importance. It has taken fifteen years to realize the extent of the mistake that was made in the failure of the Government to adopt the recommendations of the Drayton-Acworth Commission relating to trustees for the Canadian National. The recommendations of the recent Commission on this subject are more thoroughgoing and for that reason more valuable than those of the earlier Commission in that they are based on the actual experience of the past few years. The view that there should be a clear-cut separation between the operating head of the system and the board of trustees and that he should be appointed by and be responsible to the board alone is eminently sound and is long overdue. It is the logical solution of part of the problem which the President of the Canadian Pacific had in mind when he spoke of the activities of "politically-minded" executives of the publicly-owned rail-

way. Under the Commission's plan the trustees would have greater independence and permanency of tenure than is the case with directors who sit during the pleasure of the Government of the day, and this may serve to minimize the dangers of political or sectional influence in the administration of the railway system.[53]

The recommendation that there should be an independent continuous audit merely endorsed the practice which had been in effect. However, the proposal that the official auditors should submit a report of their audit to Parliament and that this should take the place of the annual examination of the detailed accounts of the System by a committee of Parliament was an innovation. These, together with the earnest recommendation that the operating officers of the System be not asked to appear for examination before the Select Standing Committee on Railways and Shipping of Parliament, were designed to replace the annual inquisitorial proceedings of that committee. The purpose of these proceedings was to avoid an irresponsible airing of the affairs of the railway on the floor of the House of Commons, and at the same time to provide a means whereby Parliament could consider the annual estimates of the Canadian National, inquire into its operations, accounts and anything else having a bearing on the expenditures of the system. In actual practice, the proceedings of the Select Committee failed to provide an appropriate check upon the policies and expenditures of the railway. As a result they gave nothing but a false assurance to Parliament and the people that all was well with the National Railways, and they divided and weakened the sense of responsibility of the board of directors in the administration of the railway, by attempting to share that responsibility with the board.

Under the provisions of the Canadian National-Canadian Pacific Railway Act of 1933, the official auditors now render a report to Parliament through the Minister of Railways. However, reference to the Proceedings of the Select Standing

[53]On account of the financial dependence of the Canadian National Railways on the Dominion Government, it is highly doubtful that this recommendation can do more than moderate the effects of political influence in the administration of the System.

Committee on Railways and Shipping for 1934 shows that there has been little appreciable change in the character of the Committee's deliberations. In addition to the Trustees, and a representative of the official auditors, the President of the System, the Director of the Bureau of Economics and one other general officer were called upon by the Committee for information about different phases of the System's operations. One has only to study the Proceedings of the Select Committee over a period of years to realize that most of its members do not possess the technical knowledge to conduct an intelligent examination either of a comprehensive railway audit report or of the operating results of such a ramified organization as the Canadian National Railways. Nor should they be expected to be trained as experts in railway accounts and operations, even though it is natural that they should want to be kept adequately informed as to the condition and detailed operating results of the government railway system. Under the circumstances it would be wise for the Committee to secure the services of a qualified railway analyst to make a periodical analysis of the operations of the Canadian National, possibly in comparison with those of the Canadian Pacific.

To return to the Commission's recommendations, the proposal to give the Trustees of the system individual responsibility for the budget of the Canadian National is in accord with the principles of sound corporate administration. The policy of dividing and sharing the responsibility for the financial conduct of this large commercial enterprise with a Committee of Parliament and with the Cabinet of the Government proved harmful to the sound financial administration of the system because it diluted ultimate responsibility and allowed political considerations to affect the policies of the railway administration.

The chief criticism of the report is that its recommendation respecting co-operative measures is totally inadequate to meet the situation with which the country is faced. If the same measures as those proposed by the Commission had been put into effect ten years earlier this criticism would not apply with

the same force. But in the meantime there has been a huge increase in the fixed investment of both railways, and the financial burden on the Dominion Treasury has been enhanced by several years of depression. What is now needed is a means of performing the railway transportation service of the two systems on a more economical basis than is possible under competition.

There is no doubt that the agreement upon co-operative measures in the interests of economy should make for a more reasonable rivalry between the two railways and, with a revival of industry and trade, railway operations should be on a sounder plane than in the period which has been reviewed. But the solution of Canada's railway problem calls for more drastic measures. The essence of the problem is an excess of railway mileage and facilities and insufficient traffic to support a competitive railway structure. To be sure, if traffic density were adequate now or in the predictable future to allow for economical and remunerative operation, one could not question the fact that the public interests would be best served by the maintenance of reasonable competition. However, under the traffic conditions that exist in Canada, railway competition has more disadvantages than advantages. An examination of the problem, and the factors surrounding it, leads to the conclusion that unified management of the two railways, by such means as will retain the profit motive, is the only practicable way of reducing costs of operation sufficiently to provide the financial relief that is so urgently needed.

Since the report of the Commission was made public, more than two years have elapsed, and the Act of Parliament carrying the recommendations into effect has been law for a year and a half. Thus opinion alone is no longer the only means of judging the possibilities of co-operative competition. The actual economies of the first year are now known and were stated by the Chairman of the Board of Trustees to be at the rate of $1,260,000 a year shared by the two railways.[54] If this saving is all that was achieved during the first period of the

[54]Select Standing Committee on Railways and Shipping, House of Commons, Ottawa, *Proceedings*, June 6, 1934, p. 3.

new legislation when enthusiasm might be expected to be at its height, then the outlook is indeed barren. Yet in view of the huge financial commitments of the National System, the economies must be very substantial if they are to provide adequate relief. The Commission stated, it will be recalled, that "some members (of the Commission) would have preferred a plan which would have established a complete dissociation of the Government of Canada from the responsibilities of competitive railway management or of any direct interest therein." This other solution was, no doubt, unification of the properties for operating purposes, a solution to which no satisfactory objections are advanced in the report. Unified management is a means by which economies of upwards of fifty million dollars are possible, according to computations made by both Canadian National and Canadian Pacific officers, and this degree of economy is necessary to reduce the railway burden to a level that the country is economically able to sustain.

CHAPTER XII

THE CANADIAN NATIONAL-CANADIAN PACIFIC ACT OF 1933

SHORTLY after the report of the Royal Commission was received by the Government, a bill was drafted to carry out its recommendations. Hearings on this bill were held from time to time by the Standing Committee on Railways, Telegraphs and Harbors of the Senate, beginning on November 10, 1932, and ending on February 16, 1933. After brief debate the bill was passed by the Senate on February 23, and after more extended debate in the House of Commons, the bill became law on May 23, 1933.[1] The Act consists of four parts: the first contains provisions which affect the administration of the Canadian National, the second directs the two railways to adopt co-operative measures for purposes of economy, the third provides for arbitration in case of disagreement over any co-operative measure, and the fourth states that nothing in the Act shall be deemed to authorize an amalgamation of the two railways.

THE PROVISIONS MODIFYING THE ADMINISTRATION OF THE CANADIAN NATIONAL SYSTEM[2]

In place of the existing board of directors of the Canadian National System, the Act provides for the appointment of three trustees by the Governor-in-Council. One of these trustees, to be appointed for a five-year term, shall be designated as the chairman of the board on full time duty. The other trustees, on their initial appointment, shall serve for less than five years and are to do part or full time duty as determined by the Governor-in-Council. The Governor-in-Council is given the power to appoint or reappoint a trustee to fill any vacancy on the board. Appointments to fill casual vacancies shall be for

[1]Statutes of Canada, 23-24, George V, c. 33.
[2]*Ibid.*, Part I, Secs. 4-16.

the unexpired term, otherwise each appointment, after the appointment of the initial board, shall be for a term of five years. Under the Act no trustee may be removed from office nor suffer any reduction in his salary, during the term for which he is appointed, except for assigned cause and on address of the Senate and House of Commons of Canada. The salaries of the trustees, as fixed by the Governor-in-Council, are to be paid by the Canadian National.

The trustees shall have all of the powers, rights and responsibilities of the existing board of directors of the Canadian National System. All of their acts and decisions shall be either by unanimous vote or by a vote of a majority providing the chairman of the board is one of the majority. No order, regulation, by-law, act or decision of the trustees shall require the approval of the shareholders of any company under their control. The trustees shall appoint the chief operating officer of the system with the title of president, and he shall report and be responsible only to the trustees. The Act specifically requires the trustees to direct that all freight destined for export, and not otherwise routed by shippers, shall be exported through Canadian ports.

CANADIAN NATIONAL BUDGET

The annual budget of the Canadian National shall be under the control of the trustees. Estimates of the amounts required for income deficits, for interest payments, for capital expenditures, and for refunding or retirement of maturing securities shall be submitted by the board to the Minister of Finance for the consideration, and approval or disapproval, in whole or in part, of the Governor-in-Council, and thereafter presented to Parliament. Income deficits shall not be funded and amounts provided by Parliament to meet capital expenditures shall not be diverted to cover operating deficits without the express approval of Parliament. The trustees shall make a report annually to Parliament setting forth in a summary manner the results of their operations, any co-operative measures as provided for in the Act, any economies produced thereby, the amount of capital expenditures, and any other pertinent infor-

mation including data that may be requested by the Governor-in-Council. Finally, this part of the Act provides that a continuous audit of the accounts of the Canadian National shall be made by independent auditors appointed annually by Parliament. The auditors shall report annually to Parliament in respect of their audit and shall call attention to any matters which require consideration or remedial action.[3] They shall be paid by the Canadian National such amounts as the Governor-in-Council may approve.

CO-OPERATION BETWEEN THE CANADIAN NATIONAL AND THE CANADIAN PACIFIC[4]

For the purpose of effecting economies and providing for more remunerative operation, the two railway systems are authorized and directed to agree upon co-operative measures, plans and arrangements that are fair and reasonable, having due regard to an equitable distribution of burden and advantage between them. They are further directed to provide, through negotiations with the representatives of the employees affected, for a fair and reasonable apportionment of employment between the employees of the two railways in connection with the operation of any co-operative measure.

Without restricting the generality of the provision for co-operation, the Act specifies that any co-operative measure may include or be effected by means of:

(a) new companies controlled by stock ownership, equitably apportioned between the two systems;
(b) leases, entrusting agreements, or agreements for the pooling and division of earnings arising out of joint operation;
(c) joint trackage, running rights, joint ownership or joint operating agreements; and
(d) joint or individual highway services, or combined highway and railway services.

[3]The annual reports of the auditors and the trustees are to be submitted to Parliament through the Minister of Railways.

[4]*Ibid.*, Part II, Sec. 16.

The two railways are directed to provide that any new company formed by them shall give preference for work to the employees in any service or on any works taken over by the new company. Finally, this part of the Act provides that no co-operative measure involving the doing of any act which requires the approval of the Board of Railway Commissioners shall be effective without the approval of the Board.

ARBITRATION IN CASE OF DISAGREEMENT[5]

To settle disputes that may arise between the two railways in connection with co-operative measures, the Act provides that arbitration tribunals shall be created when they are required. The membership of a tribunal shall consist of the Chief Commissioner of the Board of Railway Commissioners, as chairman, and two additional members, one designated by the Canadian National and the other by the Canadian Pacific. At the request of either or both of the railway representatives on a tribunal, the President of the Exchequer Court of Canada may appoint two additional members to a tribunal for the disposition of an important dispute.

The powers of a tribunal may be invoked by either railway by written application to the Chief Commissioner, setting forth in a summary way the subject matter of the dispute, and naming the representative of the company making the application. A copy of the application shall then be sent to the other company, with a request for the appointment of its representative within ten days time. In the event of the failure of the other company to appoint a representative, the tribunal may proceed to consider the dispute, and the decision of its two members shall be binding upon both companies. The chairman may, however, in his discretion, appoint a person to represent the company so failing to appoint its representative.

A tribunal shall have power and jurisdiction to settle the dispute which it was created to arbitrate, and to make and enforce orders in connection therewith, including a dispute arising out of a voluntary co-operative agreement that had not originally

[5] *Ibid.*, Part III, Secs. 17-26.

been arbitrated. Among other things, the power and jurisdiction of tribunals shall extend to disputes relating to measures, arrangements and proposals that concern:

(a) joint use of terminals;

(b) running rights and joint use of tracks where there are actual or functional duplications, or where such may be avoided;

(c) control and prohibition in respect of the construction of new lines, and provision of facilities and additional services where no essential need of the public is involved, or where the result would be in the main the division of traffic already adequately provided for;

(d) joint use of facilities where this would promote economy or permit the elimination of duplication or unremunerative services or facilities; and

(e) pooling of any part or parts of freight or passenger traffic.

An important limitation upon the jurisdiction of tribunals is contained in the provision that no tribunal shall have the power to order that any co-operative measure shall consist of or include any agreement for the construction of extensions or additions to existing railway lines, terminals or facilities except in such minor matters as connections to existing lines or facilities.

The records of proceedings, documents and orders of all tribunals shall be preserved and recorded by the same persons and in the same place as the records of the Board of Railway Commissioners of Canada. The Chief Commissioner, as presiding officer of all tribunals, shall have all the powers of the Board of Railway Commissioners to secure the attendance of witnesses, examine them under oath, and to require the production of documents. If, in his opinion, any application made to him raises questions of substantial concern to the public, or a section of the public, he may direct that notice of the sittings of the tribunal shall be published and may permit representations to be made at such sittings by such persons or bodies, as in his belief should be heard. Whenever a dispute

arises which in his opinion specially affects any province of Canada or the public thereof, he shall notify the Attorney-General of such province of the subject matter of the dispute and of all sittings of the tribunal.

An order or decision of a tribunal shall be binding upon both companies and shall have the same force and effect as a lawful order of the Board of Railway Commissioners. Every tribunal shall have the same powers as a superior court for the due exercise and enforcement of its jurisdiction and its orders. Certain of the orders of a tribunal shall require the written concurrence of the presiding officer, namely, when an order requires the doing of any act which by statute requires the assent or approval of the Board of Railway Commissioners, or where in the opinion of the presiding officer of a tribunal the public interests involved are of sufficient importance to warrant it. With the concurrence of the presiding officer, the sanction of the Board of Railway Commissioners will not be required. Moreover, in the event of any conflict between an order of the Board and that of a tribunal, the order of the tribunal shall prevail. The decision of a tribunal shall be final as to all matters of fact, and appeal on a question of law or jurisdiction may be taken only to the Supreme Court of Canada.

Finally, the Act specifies that nothing therein shall be deemed to authorize the amalgamation of any railway company which is comprised in the Canadian National with any railway company which is comprised in the Canadian Pacific, nor to authorize the unified management of the two railway systems.[6]

[6] *Ibid.*, Part IV, Sec. 27.

CHAPTER XIII

UNIFIED MANAGEMENT vs. CO-OPERATION

THE most pressing railway problem in Canada is how to secure relief from the heavy burden of interest payments in connection with the operation of the Canadian National Railways. It is equally urgent that the financial soundness of the Canadian Pacific shall be preserved. Therefore, it is imperative that some effective plan be adopted which will permit of more economical operation of the railways. Undoubtedly for several years to come, and in any event until there is a sufficient growth of traffic to support the present over-extended railway structure, drastic measures of economy are imperative.

With that objective in mind and after considering every possible plan that had been offered as a solution, the Royal Commission recommended the continuance of competition between the two principal railway systems, moderated by co-operation in the interests of economy, enforceable, if necessary, by compulsory arbitration. The Commission rejected the various proposals involving amalgamation or unification of the operations of the two railways on the following grounds:[1] (1) that the time was not opportune for giving them serious consideration; (2) that neither complete public nor complete private ownership was possible; (3) that a railway monopoly of such magnitude and importance, if not properly exercised, would prejudice the interests of the Dominion as a whole; (4) that the management of such a large system might become unwieldy with a large increase in population and a material expansion in railway mileage; and (5) that it hesitated to recommend the adoption of a policy under the stress of circumstances which might not suit a new set of conditions difficult to forecast. The Commission likewise rejected a proposal

[1]Duff Commission Report, p. 62.

for temporary unification by means of a short-time lease (fifteen years for example) on the ground that under such a plan the systems would tend to merge and that it would be extremely difficult to re-establish them as separate entities.

The Commission's objections to unification do not appear to be particularly conclusive or convincing. In the first place no explanation was offered as to why the time for unification was not opportune. As already indicated there is urgent need for both companies to secure more remunerative railway operations. The unsupported statement carries the implication that political considerations led the Commission to believe that the time was not opportune. It is possible that the Commission had in mind the effect of unification on railway labor at a time when unemployment was so great. If that were the case, it would have been desirable to say so, if for no other reason than to strengthen an otherwise weak objection. Secondly, the argument that neither complete public nor complete private ownership was possible was beside the point since a comprehensive plan for joint operation of the properties, which would leave their ownership undisturbed, had been laid before the Commission by the President of the Canadian Pacific. His plan was sufficiently concrete and authoritative to have warranted critical comment on the part of the Commission. Thirdly, the objection advanced against monopoly was contingent upon the fear that the control might not be properly exercised. To be sure, in the past the attitude of the public toward railway monopoly had been firmly based on the abuse of monopoly power. Yet there are many reasons, particularly in the case of a joint railway management, why an improper use of monopoly power in Canada would be less likely to occur under present conditions than formerly. This was the point of view advanced by the President of the Canadian Pacific and his reasons, which appear to be sound, are given later in the chapter. Fourth, the objection that the management of such a large property might become unwieldy is one that cannot be dismissed lightly. This, in reality, is part of a greater problem which was not mentioned by the Commission, namely, the

question of the relation of competition to efficiency, particularly in the railway industry.

In the last analysis one's judgment as to the desirability of combining the administration of the Canadian National with the Canadian Pacific for operating purposes must turn on its probable effect on the efficiency of railway operations in Canada. Officers of the Canadian National, in discussing this question before the recent Royal Commission, expressed the view that the large theoretical economies of unification might be difficult to realize, due to the "inevitable decline in the energy, initiative and enthusiasm of the officers and employees, once the spur of competition were removed." The argument is that the spirit of competition causes a railway management to see that the organization as a whole is alert and is properly co-ordinated for effective rivalry. It thus acts as a stimulant to produce remedies for a poorer showing or to maintain a superior performance in comparison with a rival railway. It is also maintained that in the railway field the profit incentive in itself is not sufficient to guarantee operating efficiency, since the penalty for inefficiency in a far-flung railway system, having a monopoly of railway service, is simply an increase in railway costs or a decline in the quality of service. In other words, it is contended that under a form of regulation which presumes, broadly speaking, to adjust the rate structure to cost of service, including a reasonable return to railway capital, profits might still be enjoyed despite relative inefficiency of operations. The profit incentive, therefore, would not act as an automatic check on inefficiency; the only automatic check which can exist, it is argued, is that which results from a spirit of rivalry engendered by healthy competition.[2]

The other point of view on this problem is that the profit motive would provide sufficient incentive for efficient and economical operation of the unified properties. Under the plan proposed by the Canadian Pacific, the net earnings from the joint properties would be divided between the Government and the shareholders of the Canadian Pacific on an agreed

[2]These ideas were presented to the Royal Commission by Mr. S. W. Fairweather, Director of the Bureau of Economics of the Canadian National Railways.

basis. It is argued, therefore, that there would be no likelihood of a decline in efficiency because the railway administration would be responsible to the shareholders and to the Government for the production of adequate returns from the unified properties. Moreover, the unified properties would not be in a position of complete monopoly because competition from water transport, the motor vehicle, the aeroplane and the railways of the United States (in respect to certain traffic and for standards and practices), would provide ample checks on inefficiency. The point is also made that competition between two immense railway systems, one privately and one publicly owned, does not promote operating efficiency in any way. It only results in an unfair struggle for traffic with resulting practices which are not economical. Under such conditions "healthy competition" is impracticable. Any limitation of competition short of complete unification is difficult to accomplish without the danger of placing more of the burden on, or giving less of the advantage to, one company than the other. For years the privately-owned railway has been subjected to a most unhealthy type of competition, resulting in uneconomical expenditures by both companies which could be avoided if the properties were unified.[3]

It is not easy to reconcile these differences of opinion as to the relation between competition and efficiency. On the whole, it would seem that if there were adequate assurance that there are large economies which could only be attained through unified operations, the country could afford to risk the hypothetical dangers of monopoly with respect to its possible effect on service and efficiency. One of the problems, therefore, which the Canadian people and their public representatives face, is that of judging the reasonableness of the statements respecting the large economies which, it is claimed, can be attained only through unified railway operation. There is also the task of analyzing the reasons why approximately equivalent savings can not be achieved by means of the methods

[3]These views were obtained from interviews by the writer with officers of the Canadian Pacific Railway.

prescribed in the Canadian National-Canadian Pacific Railway Act of 1933. The present chapter has been written with the hope of throwing some light on both of these questions.

However, in contemplation of the possibility that the plan might fail to furnish satisfactory railway service on a more remunerative basis without increased rates, it is important to note the difficulties that would be involved in attempting to return to competitive operations. While the plan does not aim to disturb the corporate identity of the properties, it necessarily involves their physical unification. Lines would be abandoned, shops closed, terminal facilities unified, lines once maintained on the standard of main line mileage would have their standards of maintenance lowered in conformity with reasonable operating practice. In addition there would be but one set of officers, instead of two. In the event of a subsequent return to competition, the joint operation of terminal facilities and of certain main line mileage would surely be continued and there is little doubt that satisfactory arrangements for such joint operation could be made. But the abandonment of shops and divisional points, the changed standards of maintenance for different sections of line, and the personnel question would create serious difficulties, which would probably make a return to competitive operation impracticable once the railways were unified.

VIEWS OF THE PRESIDENT OF THE CANADIAN PACIFIC[4]

The President of the Canadian Pacific Railway Company in the course of his testimony to the Royal Commission vigorously contended that no other method of handling the railway problem would be as effective as unified management in achieving economies. He proposed a combination of the two roads under the administrative direction of the Canadian Pacific, involving a division of net earnings on a basis to be agreed upon between the Dominion Government and the Canadian Pacific Company. In support of this proposal the Canadian Pacific submitted exhibits and statistical statements showing in

[4]From an identical copy of his statement on Co-operation and Unification.

considerable detail the economies that could be effected by unified operations of the two railway systems. In these studies, the details of which will be presented shortly, it was estimated that the annual net savings from unifying the railway, telegraph and express operations would be $75,373,000. All calculations were made on the basis of the expense and revenue figures for the year 1930 on the assumption that unification was then complete. Some of the savings, particularly in maintenance of way and structures, were predicated on the proposed abandonment of about 5,000 miles of railway. Later, in the proceedings before the Commission, officers of the Canadian National Railway, after a study of the savings possible from unification, gave a qualified estimate of $56,400,000 a year on the basis of "normal traffic."[5]

It is significant and unfortunate that the Royal Commission dismissed the various proposals for unification without making an impartial study of the relative advantages of unification and co-operation. As a result the Commission brought upon itself the following criticism by the President of the Canadian Pacific Railway in a public address:[6] " . . . the conclusion is inescapable that the Commission's recommendations were, in part at least, based upon their own estimate of Canadian public sentiment towards the important question of public ownership, competition and of railway monopoly. This is unfortunate because the value to Canada of work of such magnitude and importance lies in the fact that it is built upon firm foundations, economic and national, and not upon an assumed public sentiment. . . ." It is not difficult to agree with Mr. Beatty that the future railway policy of Canada should rest, not on complacent generalities unsupported by anything but vague assumptions and equally vague presentiments, but on a close impartial analysis of the two principal alternatives, unification under private administration and controlled competition. The estimated savings from unification are so great

[5]By "normal traffic," the Canadian National presumably had in mind the average traffic conditions which prevailed for several years prior to the depression.

[6]*Canada's Railway Problem and its Solution*, an Address before the Canadian Club, Toronto, January 16, 1933.

and the need for them is so urgent that the proposal should not be dismissed before it is explored from every possible angle.

In addition to his testimony before the Royal Commission, the President of the Canadian Pacific has put his proposal for unified management before the Canadian people in several addresses, the first given in January 1933, at Toronto, and the second, a month later, at Winnipeg. Others followed later at Montreal and at Vancouver.[7] Whether or not one agrees with his proposal, one can not help but be impressed by the force and candor of Mr. Beatty's remarks. In his Toronto speech he said that the question of future railway policy had been before the country on three different occasions in the past twelve years and on each occasion "we have made a wrong turning."[8] In 1921 when the Government was proceeding to acquire the Grand Trunk Railway System, the chairman of the board of directors of the Canadian Pacific, Lord Shaughnessy, sent a memorandum to the Prime Minister in which he pointed to the dangers of the Government's policy. Fearing the results of the proposed acquisition both for the taxpayer and for the future of the Canadian Pacific, he advanced an alternative plan whereby the Government could secure the benefits of private administration for its existing railway properties. His plan was that the Government should acquire the railway properties of the Canadian Pacific, guarantee a certain fixed return to the shareholders and enter into a contract with the Canadian Pacific to administer the whole property, including the existing Canadian National Railways. Mr. Beatty went on to say that if this plan had been accepted, "hundreds of millions of dollars would have been saved to Canada, and we would, even under present conditions, not have had a serious railway problem on our hands."[9]

The second occasion came when a special committee of the

[7] *Op. cit.*, also *Canada's Railway Problem and its Solution*, a second Address, before the Canadian Club, Winnipeg, Feb. 8, 1933; *The Case for Railway Unification*, An Address before the Canadian Political Science Association, Montreal, May 22, 1934; and *The Logical View of the Railway Situation*, Vancouver, September 4, 1934. All of these speeches were printed in pamphlet form.

[8] Toronto speech, p. 4.

[9] *Ibid.*, p. 6.

Canadian Senate conducted a protracted investigation of the railway situation in 1925. In its report this committee recommended a consolidation of the two railway systems for purposes of administration and operation. The suggestion was to place the two properties under a unified management headed by a board of fifteen directors, five to be named by the Canadian Pacific, five to be named by the Government, and these ten to choose the remaining five who would hold office for ten years and could be removed only for cause. The plan provided for a recapitalization of the Canadian National Railways on the basis of earning capacity, and for a guarantee of dividends for the Canadian Pacific. After the payment of dividends to the Canadian Pacific, a dividend at the same rate was to be paid to the Government on the revised capitalization of the Canadian National Railways. Any further surplus earnings were to be divided between the Canadian Pacific and the Government at the same rate on the valuation of each property. The Senate Committee was convinced that the economies of unified operation would materially lessen the burden upon the federal treasury incident to the ownership of the Canadian National Railways. The interests of the public were to be safeguarded by increasing the powers of the Board of Railway Commissioners. Nothing came of this report, largely because, in Mr. Beatty's estimation, business conditions and railway revenues improved. Passing to a consideration of the recommendations of the recent Royal Commission, the President of the Canadian Pacific said that they did not "provide any adequate solution or ground for much hope to the sadly burdened Canadian taxpayers."[10]

The concluding section of Mr. Beatty's Toronto address and most of his remarks at Winnipeg were designed to present the arguments in favor of a consolidation of the two railway systems and to answer some of the more important objections to his plan. The essence of Mr. Beatty's argument was that both railway systems "must make common cause against the effects of the unwise policies of the past, intensified by this

[10] *Ibid.*, p. 10.

protracted period of depression, and [they] can make it more effectively in union than in competition."[11] The greatest individual item of waste results from the operation of thousands of miles of duplicate and in some cases triplicate railway lines. Mr. Beatty asked: "Why should we maintain something we do not require and maintain it at tremendous loss, and can we afford to do so?" and answered: "We must reduce our present mileage to accord with the actual needs of transportation and of national development, and we must at the same time eliminate all expenditure designed to secure traffic for a competing railway rather than provide a necessary service for the public. These results can, in the view I take, only be attained if we consolidate our two railways into one system with one management."[12] In that regard he said that no scheme of co-operation between competing companies, however far it might be pursued, would effect the essential economies that are needed, without risk to the integrity of one property or the other. This point had been elaborated in Mr. Beatty's testimoney before the Royal Commission as follows: "If a general scheme of co-operation between the two competing systems were to be worked out on a large scale, carrying with it an assurance of permanency, it would have to be on the principle of equality of sacrifice and equality of advantage. Conditions vary to such an extent in different sections of the country, and are so subject to modification from time to time, that the difficulties in negotiating a mutually satisfactory arrangement on broad lines would be almost insurmountable. In short, competition and co-operation are in practice irreconcilable."

Some of the advantages of unification were described by Mr. Beatty in his testimony before the Royal Commission in the following passage: "The more favorably situated lines, the better facilities and equipment of the two companies would be available to carry out the combined operation in the most efficient manner and at the least expense. There would be none of the conflicting interests which are ever present in endeavor-

[11] Winnipeg speech, p. 4.
[12] Toronto speech, pp. 14-15.

ing to secure economies by co-operative effort. In every case where the two companies are performing similar services, if either company is more advantageously placed, that advantage would be secured for the operation of the unified property. Gradually duplication in facilities would disappear with resultant decrease in maintenance expense. Duplicate expansion, involving unnecessary competitive expenditure, would be avoided in the future. Supervisory and general expenses would be materially lessened. An important feature . . . is that these advantages can be achieved, I believe, without material detriment in service to the public and with a minimum disturbance to labor."

"The strongest and most frequent argument against unification," said Mr. Beatty,[13] "is that it will create a railway monopoly and that that is not in the interests of Canada. Indeed," he asserted, "some of the proponents of continuation of the present situation begin and end all arguments with the simple phrase: 'It is against the interests of this country.' I often wonder if those who so complacently use this argument ever seriously consider what the interests of Canada are. Do they consist . . . in the maintenance of two systems operating in competition and under the hazard of possible bankruptcy, or in a unified system which will provide adequate facilities to all parts of Canada, with economy in operation and administration not possible of attainment by any other method? To the feeling against monopoly no Canadian can refuse respect . . . The memory of abuses of monopoly still lingers. Admitting all that, are we to disregard the passage of time, the course of legislation during the last thirty years, and the adjustment of outlook forced on public utility executives by the progress of events?" These two answers to the prevalent objection to monopoly were enlarged upon by the speaker. Past abuses of monopoly, he asserted, are "impossible of recurrence in the light of more modern views of the obligations of public utilities." But in any case, since the Board of Railway Commissioners was instituted, "the tendencies of mon-

[13]Winnipeg speech, pp. 4-5.

opoly have been effectually curbed and the public interest fully protected."[14] He said that if the powers of the Commission were not broad enough to meet the new situation they could be enlarged, and "if the method of selection of its membership offers opportunities for mistakes, that method can be altered." In a word, "the power which created it can modify its structure and adapt it to any change in the national situation."[15] For the foregoing reasons and because other competing forms of transportation, the waterway, the motor vehicle and the aeroplane, would provide a restraining influence, "the dangers of railway monopoly are now mythical."[16]

The next objection to be considered was the argument that unification would mean a disregard for the human element in that it would involve a reduction in personnel. The answer to this objection was that while it is true that the necessary adjustments could not be made without some disturbance of staff, these need cause no widespread suffering or dislocation if wisely handled. Studies in the United States have shown that the normal turnover by withdrawals due to ill health, death, retirements and voluntary changes run from five to six per cent per annum of the total number of employees. "Therefore, from natural causes, in the event vacancies were not filled, the personnel of Canadian railways would be reduced in five years from twenty-five to thirty per cent, and it would not be possible to administer the unified properties with a staff reduced below seventy-five or seventy per cent of normal. Consequently, the danger of injustice can be readily exaggerated, and, of course, the danger of reduction, even to the extent I have mentioned, decreases with the return to more normal times and heavier traffic."[17] It is important to note that, in his testimony before the Royal Commission, Mr. Beatty admitted that there would be individual cases which would have to be met by some form of compensation.

[14] *Idem.*
[15] *Idem.*
[16] Toronto speech, p. 15.
[17] *Ibid.*, p. 16.

ATTITUDE OF PARLIAMENT TOWARDS UNIFICATION

A significant feature of the debates in Parliament on the Canadian National-Canadian Pacific Railway Act of 1933 was that the members of all political parties stood almost as a unit in opposition to the principle of railway amalgamation.[18] In the proceedings before the Railway Committee in the Senate, where the bill was whipped into shape, there was considerable discussion of unification as a solution of the railway problem. "Mr. Beatty," as Senator Meighen later asserted on the floor of the Senate,[19] "put his case before the Committee with convincing power. But the Committee, after considering the situation from every angle, by a vote of twenty-four to one, decided that it could not take such a course." Most of the arguments that were advanced against the principle of railway amalgamation by various members are contained in the following quotation from the speech of a member of the Conservative Party which was then in control of the House of Commons:[20]

"Mr. Beatty in his representations to the Duff commission stated that a saving of $75,000,000 could be made by unification of the two systems, but . . . that saving of $75,000,000 was predicated on his suggestion that five thousand miles of railway in Canada be torn up. I do not think that the people of Canada, or even a small proportion of them, would stand for five thousand miles of our national lines being torn up and destroyed, no matter how badly off we were financially. . . . I do not think it necessary for me to submit to this house detailed reasons why the people of Canada pretty much as a unit object to amalgamation. In 1930 the present Prime Minister said: 'Amalgamation never; competition ever,' and I think that pretty well represents the feeling of the vast majority of taxpayers of Canada. I am satisfied

[18]Canada, House of Commons Debates, March 7th to March 16th, 1933, pages 2978, 2981, 2990, 2996, 3000, 3023, 3032, 3035, 3042, 3052, 3062, 3068, 3072, 3100, 3102, 3108, 3118, 3132, 3170, 3190, 3202, 3208, 3211, 3229, 3248, 3259, 3266.

[19]Senate Debates, February 23, 1933, p. 340.

[20]House of Commons Debate, March 7, 1933, pp. 3000-1.

that amalgamation, merger, unification or whatever you wish to call it is politically impossible in Canada. I am convinced it is impossible to sell or lease the national railways on satisfactory terms to the state. In my view it is questionable if any greater saving would be accomplished by amalgamation, and I do not believe consolidation or unification would relieve the state of any portion of its capital debt or of the present annual charges. I am convinced that consolidation into one system would result in a decline in the energy, initiative and enthusiasm of employees, the excellent morale at present existing among them having been developed by competition, competition alone will maintain it. Amalgamation would result in a monopoly of rail transportation which by virtue of that very fact would work to the disadvantage of business and of the public. People generally place a high value upon competitive railway service and would be reluctant to dispense with such competition. Moreover a monopoly would be placed in the hands of a very few, a tremendous power which might be unwisely exercised. I am convinced that amalgamation would result in an unwieldy system which could not be efficiently managed. Amalgamation must necessarily be permanent in effect. . . . It is not necessary to point out to the house the trouble there would be in unscrambling the two systems after their being under one control. I believe that amalgamation must necessarily be permanent in effect and does not envision a brighter future with more business and a greater population, and consequently better times for our railroads. For the reasons I have set out I submit that amalgamation or unification of the systems is not only undesirable but impossible."[21]

The foregoing statement was the most complete outline of the arguments against amalgamation in the entire debate on

[21]All of the arguments in this speech had previously been presented by officers of the Canadian National in testimony before the Duff Commission. Most of them will be recognized, almost word for word, in the description of the views of the Acting President of the Canadian National, which will be found later in the chapter. The significant features of the quoted speech are the sweeping general statements which were expressed without any attempt to substantiate them. Some of the statements show clearly that the speaker had not made more than a cursory study of the proposal which he was opposing.

the railway bill. The sentiment on both sides of the house was so uniformly against unification that it was not a live issue, and for that reason it received more or less summary treatment. Some members expressed the belief that greater economies would undoubtedly be effected by amalgamation than by any other proposal but that these benefits would be purchased at too high a price. Others were of the conviction that amalgamation was undesirable but that if the time ever should come when it would be necessary, the public would not tolerate anything but a public or state monopoly.

The attitude of the Liberal Party was stated by its leader as follows:[22] "I believe all honorable members on this side are at one with honorable gentlemen opposite in a desire to effect economies by avoiding wasteful competition, and are also desirous of furthering co-operation along right lines as much as possible. But we on this side have a very decided view on the question of amalgamation. We feel that the Canadian National Railways should be maintained in their integrity as a publicly-owned and publicly-controlled service, and that no legislation should be permitted to pass this parliament at this time which will have the effect of causing the integrity of the national system to be destroyed, its identity to be lost, or the system itself to be amalgamated with the Canadian Pacific Railway."

During the debate in the House many of the members of the Liberal Party expressed a fear that the bill under consideration could be used to bring about a unification of the two systems unless it contained a specific prohibition against amalgamation. Their concern on this point was partly due to the fact that this prohibition was originally included in the bill and was later taken out. The pressure from the Opposition was so great, however, that the Government restored the provision in the bill before it was finally enacted on May 23, 1933. The prohibition against amalgamation in the Act is as follows:[23] "Nothing in this Act shall be deemed to authorize the amalgamation of any railway company which is comprised

[22]House of Commons Debate, March 9, 1933, p. 3052.
[23]Part IV, sec. 27.

in National Railways with any railway company which is comprised in Pacific Railways nor to authorize the unified management and control of the railway system which forms part of the National Railways with the railway system which forms part of the Pacific Railways."

The general tone of the debate in Parliament showed clearly that there can be no hope of an economic solution of the railway problem as long as railway amalgamation is politically inexpedient. Moreover, railway amalgamation will continue to be politically inexpedient until the people of Canada are more adequately informed as to its probable effects upon service, railway labor, rates, and net railway operating revenues. Yet, if there is not an early upturn of business, or if co-operation fails to bring about adequate financial relief for the two railway systems, one of the political parties may be willing to assume the risk of giving the people of Canada an opportunity to vote for or against railway amalgamation. This may be foreshadowed in the following remark of the Prime Minister:[24] "In my judgment it would be impossible to bring about the amalgamation of these two systems on any terms or conditions unless the people, themselves, had an opportunity so to declare. I have given much thought to the point as to whether or not the honest and proper method to pursue is, at the next general election, to afford an opportunity by plebiscite for the people to determine whether or not it is desirous that this should happen."

VIEWS OF THE ACTING PRESIDENT OF THE CANADIAN NATIONAL RAILWAYS

When the Senate Committee on Railways was considering the recent railway bill in the fall of 1932 and the spring of 1933, one of the Senators read into the record extracts from the evidence which the then Acting President of the Canadian National Railways gave before the Royal Commission. A summary of part of that evidence will serve to show the attitude of this official towards amalgamation. He expressed his be-

[24]House of Commons Debates, March 9, 1933, p. 3062.

lief that:[25] (1) "the consolidation of practically all railways into one system would inevitably result in a serious decline in the energy, initiative, and enthusiasm of the officers and employees which is now at a remarkably high level and which has been largely developed and sustained by vigorous competition. The spirit of loyalty and enthusiasm constitutes a most important asset and if it were seriously impaired, as it doubtless would be, the resultant loss would largely, if not wholly, offset any savings that might be effected. Not only would the railways lose in efficiency and consequently in the cost of operation, but the public would also suffer seriously from the general slowing down and deterioration of the service. Competition has very largely created the existing morale of the staff and only competition can maintain it. (2) In view of the efforts that have been put forth by the people in various communities and sections of Canada and the obligations that have been assumed to secure competitive railway service, it would appear that the people generally place a high value upon it, and presumably would be reluctant to give up now what they have secured."

When asked if he had a practical working basis for the two systems to run in competition and at the same time operate in harmony with the resources of the country, Mr. Hungerford said that the best ultimate results would follow the adoption of the following policies:[26]

(1) Maintenance of the present status and organization of the two railways.

(2) Co-operation between the two companies as far as feasible, subject to the condition that in any case neither company shall suffer loss, and that one or the other, or both, shall secure substantial advantage.

(3) Continuance of the present policy of effecting every practicable economy in operation.

(4) Adoption of reasonable measures to combat highway competition.

[25] Standing Committee on Railways, Telegraphs and Harbors, *Proceedings*, on Bill A, as read into the record on February 1, 1933, p. 201.

[26] *Ibid.*, pp. 204-5. (Reprinted from the Proceedings of the Duff Commissison).

(5) Curtailment of capital expenditures to:—
   (a) Items necessary for safety of operation;
   (b) Items ordered by competent authority or obligations assumed by agreement;
   (c) Items which will undoubtedly earn a full return on investment.

(6) Creation of a commission endowed with power:—
   (a) To enforce reasonable co-operation between the companies;
   (b) To approve the issuance of railway securities.

The possible opportunities for co-operative effort were outlined as follows:[27]

(1) The pooling of passenger train services between competitive points.
(2) Some form of amalgamation or co-operation with respect to Pacific coast steamship services.
(3) The same thing with respect to hotel services.
(4) The same thing with respect to telegraph services. (Mr. Hungerford explained that he was omitting express services from his list because "the express situation is rather complicated by possible developments in connection with meeting highway competition; there seems to be a tendency there, perhaps, to grow away from express and really make it an agency for handling package freight, or something of that kind.")
(5) Further study of the possible joint use of tracks to permit the abandonment of parallel lines.
(6) Further study of the possibility of further joint use of terminal facilities of various kinds.
(7) Possibility of co-operation in the handling of freight traffic by one railway for the other under reciprocal agreements.
(8) Joint efforts to meet bus and truck competition.
(9) Use of each other's equipment in preference to hiring from other companies. (This is an arrangement which is already in effect and which works satisfactorily.)

[27]Ibid., pp. 208-12. The limited possibilities of these suggestions in actual practice are discussed later in the present chapter.

(10) The possibility of some further co-operative development in connection with lake and rail business.
(11) The possibility of abolishing or consolidating off-line or uptown agencies of various kinds.
(12) Interchange of traffic where it is possible to influence passengers and freight shippers to use connecting lines of the Canadian Pacific or Canadian National or their subsidiaries, in preference to the connecting lines of other companies.

One further point in Mr. Hungerford's testimony is of importance. Referring to the savings that had been estimated as possible under amalgamation, he said:[28] "When I analyze those credit items I find—at least to my satisfaction and I think to the satisfaction of others—that a great many of them are of doubtful attainment; and in a general way I believe a very large proportion of all the real economies that can be secured at all can be secured under separate operation; and the comparatively slight difference between the degree of economy that can be secured from separate operation as compared with that under amalgamation would be more than offset by the obvious disadvantages of amalgamation which I have referred to. Frankly, I see no further answer to this railway question at all than to do just what we have suggested—economize in every possible way, and simply hope for a return to normal times."

THE ATTITUDE OF RAILWAY LABOR

Organized railway labor in Canada has gone on record that it is opposed to railway amalgamation as a solution of Canadian railway difficulties. Its position, stated on more than one occasion since the spring of 1932, is that the identity of the two railways should be preserved. This point of view was presented in a lengthy memorandum submitted on behalf of the standard organizations of railway employees to the Senate Committee on Railways as follows:[29] "Railway labor is fully in accord with the recommendation of the Royal Commission to the effect that the identity of the Canadian National and the

[28] *Ibid.*, p. 207. This point is analyzed later in the present chapter.
[29] *Ibid.*, p. 98.

Canadian Pacific Railways be maintained. It is also fully in accord with the Commission's recommendation that the Canadian National continue under government control and that its relation to the Government be so modified as to reduce the hazard of political interference in management to a minimum. As a general proposition, railway labor considers that the interests of the railway user, investor and workers as well as the public will be best preserved and furthered through the maintenance of healthy competition beween a publicly-owned and a privately-owned railway system of approximately equal status. It visualizes in this arrangement, subject to a statutory mandate for the two railway systems to eliminate wasteful rivalries, the most satisfactory set-up which can be devised for the conduct of the railway service of Canada."

In its representations, railway labor has expressed great concern that the human element in the railway industry be not sacrificed "in the vain hope that such sacrifice will solve the financial and material difficulties of Canada's railways and Government."[30] It therefore urged the necessity of imposing upon the railway a statutory duty not to aggravate the evils of unemployment as a by-product of co-operation between them. This point is of considerable significance in view of labor's admonition that "the degree of efficiency, the cost of operation and the quality of the service of the railways are vitally affected by the attitude and conduct of the thousands of persons necessary to perform the day by day tasks of railway operation. Without their enthusiastic and loyal help and cooperation it would be impossible for the railways adequately to fulfil their responsibility to the people and industries of Canada."[31]

THE PLAN FOR RAILWAY UNIFICATION PROPOSED BY THE CANADIAN PACIFIC RAILWAY COMPANY

The plan proposed by the Canadian Pacific Railway Company provides for an agreement between the Government and

[30] *Ibid.*, p. 105.

[31] *Ibid.*, p. 97. For a more complete statement of the views of organized railway labor on the Canadian railway problem, see: *Submission on Behalf of Railway Labor to the Royal Commission on Railways and Transportation*, Ottawa, February 15, 1932. Prepared by O. S. Beyer, Jr. and presented by Robert J. Tallon, pp. 1-68.

the Canadian Pacific whereby the Government would entrust the management of the Canadian National system to the Canadian Pacific Railway Company for administration and operation. The details of the agreement, in so far as the provision for a division of earnings and the treatment to be accorded to the workers and supervisory staffs of the two systems are concerned, have not been worked out. This is indicated in the following statement made by Mr. Beatty to the Senate Committee on Railways:[32] "The proposal made to the Commission, and worked out in a rather elaborate way through exhibits and statistical statements, was a consolidation for the purpose of administration—not a physical amalgamation, not a financial amalgamation, but simply an administrative amalgamation, if I may use that term. And it was to be an agreement between the Government and the Company under which we entered into a profit-sharing arrangement, that the net earnings of the combined systems should be divided in certain proportions, as decided upon by the parties, the percentage payable to the Government increasing as the traffic increased. Of course, we had not got down to a discussion of the details, but it would not be difficult to do substantial justice to both railroads and their owners."

The following discussion of the plan gives (1) a broad outline of the changes that would be effected under unification, (2) the chief items of savings and a description of the methods used in computing them, (3) a critical analysis of the estimated savings and (4) general conclusions.

1. OUTLINE OF THE CHANGES TO BE EFFECTED BY UNIFICATION [33]

A. SUPERVISORY ORGANIZATIONS

The combination of the two systems would permit a more compact organization for operation and administrative purposes than now exists for the separately operated properties. This is shown in the following table:

[32] *Ibid.*, November 17, 1932, p. 44. Mr. Beatty stated that it would take about five years to obtain the full savings of unified management.

[33] From the detailed exhibits prepared by the Canadian Pacific Railway Company.

Supervisory Organizations

	Present				Proposed
	Canadian National System	*Canadian Pacific System*	*Joint Companies (Northern Alberta Rys. and Toronto Terminals)*	*Total for Systems Separately Operated*	*Total for Combined Systems Under Unified Operation*
System Headquarters	1	1	—	2	1
Regional	4	2	—	6	4
District	11	11	1	23	11
Division	43	30	2	75	52

Unification of the two properties would abolish one system headquarters, two regional organizations, twelve district offices and twenty-three divisions. As a consequence it was estimated that the expenditures for supervision would be reduced materially.

B. PROPOSED ABANDONMENT OF DUPLICATE MILEAGE

One of the advantages of unification, stressed by Mr. Beatty, was that it would make possible the abandonment of more than 5,000 miles of line, whereas it would be most difficult to eliminate as much as 1,500 miles if the two systems continue to be operated separately. The following table gives the mileage of the lines that would be abandoned on the Canadian National and the Canadian Pacific:

Proposed Track Abandonment

	Main Line	*Branch Line*	*Total*
Steam Railways:			
Canadian National	2216	1042	3258
Canadian Pacific	744	961	1705
Northern Alberta Railways	—	50	50
	2960	2053	5013
Electric Railways:			
Canadian Pacific (Lake Erie & Northern Ry.)	—	38	38
Total All Lines	2960	2091	5051

The determination of the lines that might be abandoned was made by a committee of officers of the Canadian Pacific, and

represented its best judgment of the amount of trackage that could be dispensed with if the properties were unified. It was expected that further study might necessitate changes in the details of the lines to be abandoned, but the committee was confident that an abandonment in excess of 5,000 miles of line would be possible.

Among the lines which would be dispensed with is the National Transcontinental between Winnipeg and Nakina, and the old Canadian Northern line between Long Lac and Ottawa. In substance this would mean the abandonment of the present main transcontinental line of the Canadian National between Ottawa and Winnipeg, amounting to 1,570 miles of line.[34] At present there are three railway lines between Winnipeg and eastern Canada. The Canadian Pacific is double-tracked between Winnipeg and Fort William, and while its line from Fort William to Sudbury, Ontario, has less favorable grades than the present main line of the Canadian National, it is superior in other respects. Large sums have been spent upon the track and permanent structures over a great many years, and it is claimed that it would cost a great many millions to bring the Canadian National line up to equivalent standards. In any event, on the basis of present and future traffic requirements one of the three routes is superfluous. By retaining the Canadian Northern line from Winnipeg to Fort William and on to Nakina and the National Transcontinental from Nakina to Quebec City, along with the Canadian Pacific line there would be two transcontinental routes between the East and the West. The Canadian Northern line between Winnipeg and Fort William would be retained in preference to the National Transcontinental, because it serves more important communities and affords a connection with a railway to Duluth. The portion of the National Transcontinental to be preserved would continue to serve the timber, mining and agricultural territory in northern Ontario and northern Quebec, and as

[34]This abandonment would include the Lake Superior branch line extending from the National Transcontinental to a point near Port Arthur, and a Canadian National main line from Capreol to Beaverton near Toronto which is parallel to the Canadian Pacific main line.

already indicated it would furnish an alternative route between the East and the West (with running rights over the Temiskaming and Northern Ontario Railway from Cochrane to North Bay).

It was also proposed to abandon most of the National Transcontinental line east of Quebec City, since the local traffic is very light and the through traffic could be provided for on the Intercolonial and the present short line of the Canadian Pacific. In British Columbia, the Canadian Pacific line from Kamloops to Hope and the Canadian National line from Hope to Vancouver would be eliminated. In Ontario the plan provides for the abandonment of the Canadian Pacific main line between Glen Tay and Whitby and between Woodstock and Windsor, utilizing in their place the double-track line of the Canadian National. Finally, among the important lines to be dispensed with is the Canadian Pacific line between Saskatoon and Unity, which is a secondary main line closely paralleling the main line of the Canadian National. The other changes, although numerous and involving considerable mileage, affect only branch lines which parallel others, or on which the traffic is unprofitably light.

Unified management would greatly simplify the problem of securing track abandonment. Through traffic would first be re-allocated over the most favorable routes. Detailed study would then be made of local traffic to determine whether the continued operation of a line was justified. According to the circumstances the line would be entirely abandoned or the maintenance standard would be reduced to the new conditions. In either event there would be substantial economy, and action could be taken to produce the least inconvenience to established undertakings and communities consistent with elimination of uneconomical duplicate facilities. It would not be necessary to institute the safeguards to the revenues of two separate railways that would be essential if competition is continued. The net economy from such track abandonment or reduced maintenance standards would automatically accrue to the combined interest, and be equitably divided between the Government and

the shareholders of the Canadian Pacific. All this would require a number of years to accomplish, so that many of the changes made would occur gradually, and there would be time for the necessary adjustments to take place without undue disturbance to any interests.

C. REDUCTION IN PASSENGER TRAIN MILEAGE

In calculating the amount of reduction in passenger train and car mileage that would be possible after unification, the criterion that was followed was that of "economy without detriment to the public service." By consolidating lightly loaded trains operating between the large centres of population and in transcontinental service, and by re-routing trains over shorter or more economical routes, it was estimated that there would be a saving of 7,500,000 train miles, or 16.2 per cent of the aggregate train mileage of 1930, and in excess of 51,000,000 car miles, or 14.9 per cent of the total.

D. ECONOMIES IN FREIGHT TRANSPORTATION SERVICE

Unification of the two systems is expected to bring economies in the freight service through (1) re-routing of freight traffic over shorter or more favorable routes, (2) consolidation of fast freight trains between large centres, (3) reduction in the number of cars required to handle less-than-carload freight, (4) redistribution of locomotives, thus ensuring larger average daily mileage of the more efficient units, and (5) reduction in the expense of terminal operations. It was estimated that there would be a saving of 5,300,000 freight train miles, or 9.2 per cent of the combined freight train mileage for the year 1930, and 67,000,000 freight car miles, or 3.3 per cent.

The determination of the possible savings in terminal operations under unification must await a detailed study at each terminal of the physical conditions and traffic of both properties in relation to the surrounding territory. In the exhibits prepared by officers of the Canadian Pacific there is an impressive list of the terminal points where material reductions in expenses would be possible. The character of the economies

was described by Mr. Beatty as follows: "The concentration of similar work in certain yards, the movement of traffic through terminals by the most economical route, the elimination of interchange requirements, and the reduction of switching because of fewer trains and cars to be handled will mean a reduction in yard switching expense. Consolidation of freight and passenger services in the sheds and stations of one company or the other will be a convenience to the public, and will result in economies to the public beyond the saving in railway expenses. The situation at these terminals has been examined in a preliminary way and a conservative estimate of the savings which will accrue was determined. Unification will result in avoiding the replacement and enlargement of many facilities which, if the railways continue to be operated separately, will involve heavy expenditures for both roads, and indeed will permit the abandonment of some existing facilities with a resultant saving in maintenance expense which has not been computed."

E. ECONOMIES IN LOCOMOTIVE AND CAR REPAIR WORK

It is expected that unification under private management would result in the use of the most efficient shops to handle the work of the combined systems. Similar work would be concentrated, as far as possible, in one or more shops, and the most modern machinery of the two companies would be available for the combined repairs, thus reducing the unit cost of repairs.

2. THE ESTIMATED ECONOMIES FROM UNIFICATION BY MAJOR EXPENSE ACCOUNTS

Having determined the possible reductions in track, train and car mileage and having examined the possibilities for economies in terminals, shops and supervision, the committee of officers of the Canadian Pacific carried these reductions through the general accounts under which railway expenditures are classified. They arrived at a total saving in operating expenses of $64,267,000. The methods which were used in computing the savings will be described under each main class of operating expense.

A. MAINTENANCE OF WAY AND STRUCTURES

The estimated reduction in the cost of maintaining ways and structures after unification is $14,888,622. Most of the decrease comes under the headings of superintendence and track maintenance, where economies of $2,492,979 and $9,443,565 respectively are indicated. Nearly one-half of the estimated saving would result from the abandonment of 5,000 miles of track; about one-quarter of the reduction would be made possible by the consolidation of traffic and the realignment of services which would follow unification. The remainder was determined by calculating that the reduced mileage of the combined properties after unification could be maintained at unit costs no greater than Canadian Pacific unit costs. The total reduction represents about 20 per cent of the combined maintenance cost in 1930, and the Canadian Pacific considered this to be the minimum of the economies possible under private management of the unified properties from (1) track abandonments, (2) degrading standard of maintenance of certain lines following re-routing of traffic, (3) reduced wear and tear on account of reduction in train, engine and car mileage, and (4) reduced maintenance of terminal trackage and facilities.

B. MAINTENANCE OF EQUIPMENT

The estimated reduction in the cost of maintaining equipment amounts to $14,360,000 or approximately 18 per cent of the combined cost in 1930. Approximately $9,000,000 of the saving would result from the elimination of forces on abandoned lines and from the reduction in locomotive and car mileage. The remainder of the saving was computed by applying Canadian Pacific unit costs to the locomotive and car mileages of the unified system, on the ground that unification would permit the concentration of work on a production basis at the most efficient shops. In this regard Mr. Beatty said: "Our mechanical officers consider we would not only be able to equal our unit repair costs for the unified system, but, in the case of locomotive and freight car repairs, would be

able to achieve a 5 per cent reduction through a higher percentage of modern equipment being in service, and through concentrating repair work on a production basis at the most efficient shops." The principal items of economies were estimated as follows: superintendence, $1,410,754; steam locomotive repairs, $7,765,015; freight train car repairs, $2,703,-896; passenger train car repairs, $1,762,074. The estimated cost of superintendence of maintenance of equipment after unification is 48 per cent of the combined cost incurred for that item in 1930, steam locomotive repairs are 71 per cent of the actual costs for 1930 and total maintenance of equipment costs are 82 per cent of the figures for 1930. The Canadian Pacific considered this the minimum of economies possible under private management of the unified properties from (1) elimination of duplicate equipment repair facilities on abandoned lines, (2) reduction in locomotive and car mileage, (3) concentration of work and consolidation of facilities, (4) use of best equipment, machinery and shops, and (5) future standardization of parts.

C. TRAFFIC EXPENSES

The reduction in traffic expenses was estimated as $5,775,-000, which is 30 per cent of the combined traffic expenses in 1930. In view of the fact that the activities of the traffic departments of the two railways are directed largely against each other, a combined traffic department could serve the unified system and the public adequately, at a materially reduced expense.

D. TRANSPORTATION EXPENSES

On the basis of 1930 operations, the estimated saving in transportation expenses amounts to $23,994,000. This represents a reduction of 13.1 per cent and consists of the following principal savings: superintendence, $1,290,470; station service, $3,470,950; yard service, $3,944,466, and train service, $13,215,549. The superintendence item was computed in the same manner as in other general accounts.[35] The savings in

[35] It was estimated that the supervisory costs of the combined properties per dollar of revenue would be no higher than the unit supervisory costs of the Canadian Pacific.

station and yard service expense were calculated after a detailed study of the various places where unification of stations and terminals was deemed practicable. They also reflect the proposed reductions in track mileage and in train and car mileage. Many savings which were believed possible, particularly in the handling of less-than-carload freight in freight sheds and switching of cars at terminals, were not computed. The reduction in train service costs reflects the decreased passenger and freight train mileage. "The unit costs used, in the main, were those of the combined system so as to give effect to the different operating conditions of the two roads." A saving in fuel costs was included, based on the reduction in car mileage, rather than train mileage, and on the expected use of the most efficient locomotives of the two roads, and on lower fuel prices due to the purchase of larger quantities.

E. GENERAL EXPENSES

The general expenses of the combined properties after unification were calculated by applying the general expenses of the Canadian Pacific per mile of line to the mileage of the unified properties and deducting 20 per cent from the total so computed, on the assumption that many items in the cost of administration and accounting would not be increased over the separate costs of either of the railways. The estimated saving is $4,289,000, a reduction of 31.8 per cent, divided principally as follows: salaries and expenses of general officers, $677,439; clerks and attendants, $2,668,672; general office supplies and expenses, $480,776; and law expenses, $362,937.[36]

F. MISCELLANEOUS EXPENSES

In this group there is a reduction of $918,249 in dining and buffet car service expense due to the estimated decrease in dining car mileage required for the reduced passenger train service.

[36]The estimated saving in general expenses amounts to 39.15 per cent of the combined general expenses (less insurance and pensions).

SUMMARY OF ESTIMATED SAVINGS IN OPERATING EXPENSES

The first column of figures in the following table gives the combined operating expenses for the two railways (including the Northern Alberta and Toronto Terminals Railways) for the year 1930 under separate operation, the second column gives the estimated expenses as of 1930 if the properties were unified, and the third column shows the estimated operating savings.

Economies Believed Possible by Unification of the Canadian National and the Canadian Pacific Systems Under Private Management[37]

Railway Operating Expenses—Based on the Year 1930

	Total for Railways Under Separate Operation	*Total for Railways Under Unified Operation*	*Net Saving*
Maintenance of Way & Structures	$ 76,256,063	$ 61,367,441	$14,888,622
Maintenance of Equipment	80,642,278	66,281,864	14,360,414
Traffic	18,967,243	13,191,726	5,775,517
Transportation—			
Rail	183,312,026	159,317,650	23,994,376
Water	1,029,035	987,535	41,500
General	13,488,760	9,199,755	4,289,005
Miscellaneous	4,215,884	3,297,635	918,249
Total	$377,911,289	$313,643,606	$64,267,683

TELEGRAPH AND EXPRESS OPERATIONS

The estimated reductions in the operating expenses of the telegraph and express departments are $948,000 and $1,450,000 respectively. These bring the total operating savings up to $66,665,000, representing a reduction in operating expenses of 17.3 per cent.[38]

[37]The figures used in this table include Steamship Traffic expenses of the Canadian Pacific, but exclude in all three columns expenses of the Canadian Pacific for Pensions, and for Commercial Telegraphs and Express. These omissions had no bearing upon the amount of the estimated savings, since Express and Telegraph were dealt with separately and the effect of unification upon Pensions was apparently not calculated.

[38]This percentage is the ratio of total estimated operating savings to the combined railway operating expenses for 1930, as re-stated to include figures for the Canadian Pacific on the comparable basis given to the Royal Commission, i.e., including Telegraph, Express and Pension expenses. On this basis, the combined railway operating expenses for 1930 were $385,489,000.

EFFECT OF UNIFICATION ON OPERATING REVENUES

It was estimated that there would be a gain in freight revenues amounting to $2,135,000, brought about by securing a longer haul over the combined system on international, interstate and Great Lakes traffic. This was expected to be offset by a loss in gross revenues amounting to $739,000 made up as follows:

(1)	Interswitching and local switching	$100,000
(2)	Reduction in rates "two line" to "one line" basis	100,000
(3)	Reduction in rates due to shorter mileage of consolidated lines as compared with separately operated single lines	100,000
(4)	Loss in traffic from abandoned lines, which will move by other transportation agencies	439,000

The assumptions involved in calculating the estimated loss in revenue of $439,000 due to the abandonment of 5,000 miles of line were not given. Presumably it was considered that the traffic would move to the parallel lines retained, and that a great deal of this local traffic accrues because of the existence of railway employees and individuals servicing such employees. These individuals would naturally transfer to other lines concurrently with the re-routing of traffic and the abandonment of trackage.[39]

Unification was not expected to affect passenger and "other" revenues, so that the net increase in gross operating revenues was estimated at $1,396,000. On the basis of 1930 figures, gross operating revenues of the unified system would be $450,829,000 and total operating expenses $318,824,000. The operating ratio would be 70.72 per cent, which compares with the Canadian National operating ratio for 1930 of 91.2 per cent, the Canadian Pacific operating ratio of 78.4 per cent and their combined operating ratio of 85.8 per cent.

NON-OPERATING SAVINGS AND TOTAL NET GAIN

To complete the picture of the anticipated results from unification there should be mentioned certain other items of

[39] If further study corroborates these assumptions, it would constitute a strong argument for unification. For if nearly all of the local traffic on the 5,000 miles of line can be shifted to parallel railway lines, it certainly is uneconomic to continue to maintain and operate the superfluous mileage; and it is undoubtedly true that it would not be practicable to abandon most of the excess lines unless the two systems were unified.

expected saving. A unified system would require smaller stocks of material than the two railways operated separately. The money realized from the material released and from the material salvaged from abandoned tracks would improve the net earnings of the system by the amount of $1,700,000 annually, figuring interest at five per cent. A similar type of saving was anticipated with respect to the reduction of investment in equipment due to the decrease in train and car mileage. This annual saving was estimated at $4,650,000, which represents interest at five per cent on a reduced investment in equipment to the amount of $93,000,000. Other economies of a miscellaneous character, such as those from the combined operation of the Pacific coast steamships, would amount to $961,000.[40]

The total annual net gain from unified management was estimated to be $75,373,000. This is the equivalent of a five per cent annual return on a capital value of $1,507,460,000. If such a large annual improvement in net results could be achieved with any degree of certainty, unified management would obviously be the appropriate solution of Canada's railway ills. Without speculating as to the basis of dividing the net revenue of the unified system between the Government and the Canadian Pacific Railway Company, it is interesting to note the size of the net railway operating income on the basis of 1930 figures. In that year the net railway operating income, which is the amount available for interest and dividend payments, was $38,312,451 for the Canadian Pacific System and $13,978,458 for the Canadian National System, making a total of $52,290,909. To this would be added the net gain from unification, $75,373,000, which would give a figure of $127,663,909 for net railway operating income. Strictly speaking, $6,350,000 of the net gain would be a reduction of fixed charges rather than an addition to net income, so that the net railway operating income would be $121,-

[40]Mr. Beatty also testified that with unification there would be a saving in future capital expenditures, because "in providing for the normal growth of traffic and changes in its character, the extension of one plant would obviously cost much less than two."

313,909. In 1930 lease rents and interest payments of the Canadian Pacific were $19,159,865, preference stock dividends were $5,005,623, and common stock dividends at the rate of ten per cent on par value were $33,242,907, making a total interest and dividend distribution of $57,408,395.[41] In 1930 interest payments by the Canadian National on securities in the hands of the public amounted to $51,317,538. It appears, therefore, that the estimated net operating income of the unified system would be sufficient, on the basis of 1930 results, to cover the interest and dividend obligations of the separate systems and leave a surplus of $12,600,000.[42]

3. CRITICAL ANALYSIS OF THE ESTIMATED SAVINGS FROM UNIFICATION

For the purpose of clarity of presentation, the details of the estimated savings and the methods of computing them have been presented without criticism. However, it is highly important to determine whether or not the Canadian Pacific proceeded along reasonable lines in its computations. At this writing, the opponents of the plan for unification have voiced their objections only in general terms. In public discussions, nothing by way of detailed analysis has been added to the arguments developed by the President of the Canadian National to the effect that a great many of the estimated economies are of doubtful attainment and that a very large proportion of the real economies which can be secured at all can be secured under separate operation. The task of appraising the estimated savings from unification is by no means an easy one. Analysis of many of the computations requires not only specialized technical knowledge but also close familiarity with the operating conditions on the two railways. The following

[41]It should be remembered that the Canadian Pacific Railway Company owns many investments in addition to its railway, telegraph and express properties, such for example as its hotels, steamships, lands and miscellaneous investments. Normally these other investments add materially to the company's revenues from its railway operation and provide part of the return on the outstanding securities. A sizeable amount of the company's properties was built up or acquired out of surplus earnings, and in normal times the company could be said to be undercapitalized.

[42]Since 1930 the fixed charges of both railways have increased, which would give a smaller surplus than is here indicated.

discussion of the detailed economies is presented for the purpose of throwing some additional light on the question, even though the last word cannot be given in many instances.

MAINTENANCE OF WAY AND STRUCTURES

As stated earlier, about one-half of the estimated reduction in maintenance of way expense would result from the abandonment of 5,000 miles of line. The estimate appears to be reasonable, for it amounts to $1,400 per mile of abandoned line which compares with average maintenance expenditures in 1930 of $1,672 and $2,028 per mile of line for the Canadian Pacific and the Canadian National respectively. Needless to say, part of this saving could not be realized if the Board of Railway Commissioners were to refuse authorization for the abandonment of some of the excess mileage, although even in that case a large part of the economy could be secured by degrading the standard of maintenance of one of the parallel lines to a level sufficient to take care of local traffic only.

A further reduction would be made possible by (1) a lower standard of maintenance of former main lines that would become secondary main lines or branch lines after unification; (2) reduced wear and tear on account of the reduction in train and car mileage; (3) reduced maintenance of terminal tracks and facilities through consolidation of terminal operations, and (4) economies in supervision. The estimated reduction on account of these factors was $7,884,000, which is equivalent to $219 per mile for the reduced mileage of the unified properties or approximately 10 per cent of the average cost of maintenance per mile for the two railways over a period of years.

It is significant to note that most of the estimated economies under this category are of such a nature that they could only be achieved by means of unified railway operations. This should be borne in mind in appraising the relative merits of unified management and co-operation, for so long as the two railways are operated in competition with each other their combined expenses for maintenance of way will be several

millions a year more than they would be after unified management.

MAINTENANCE OF EQUIPMENT

In calculating the reduction in the cost of maintaining equipment after unification, it was undoubtedly sound to give effect to the reduced use of equipment resulting from the estimated reduction in locomotive and car mileages. On the basis of past unit repair costs, the saving of $6,677,000 attributed to reduced use of equipment appears to be conservative. The remainder of the estimated saving in maintenance costs, $7,-683,000, was determined by calculating the economies that could be realized by eliminating duplicate facilities and forces on abandoned lines, concentrating repair work, consolidating shop facilities, and using the best equipment, machinery and shops of the unified properties.

Some criterion of the reasonableness of the estimated savings in the maintenance of equipment is to be found in the fact that the costs after unification on a unit basis, car miles, locomotive miles, etc., would be in line with past performances of the Canadian Pacific. It will be recalled that unit maintenance costs of the Canadian Pacific were uniformly lower than those of the Canadian National in the period 1923 to 1931. The measured opinion of the mechanical officers of the Canadian Pacific is that they can do more than duplicate their cost performance on the combined properties. When consideration is given to the disparity in the past performance of the two railways and to the opportunities for saving as a result of the reduction in locomotive and car mileage, it can hardly be denied that there is a large field for economies in the maintenance of equipment.

TRAFFIC EXPENSES

In view of the present duplication of activities in the two traffic departments, there is no doubt that there would be a large saving after unification. The estimated economy was 30 per cent of the combined traffic expenses for 1930, includ-

ing the traffic expenses of the Canadian Pacific Steamship Company. Excluding the steamship traffic expenses the saving was 38.2 per cent of the combined railway traffic expense, which seems to be reasonably conservative.

TRANSPORTATION EXPENSE

The savings of $23,994,000 under this heading represent 37 per cent of the total estimated reduction in operating expenses. The methods of computing these economies appear to be sound. Of course a certain part of the economies in this category, as in others, is dependent upon the abandonment of a large amount of line. However, the most decisive factor in the actual achievement of such large economies is the intangible one of the effect of unification on the morale and efficiency of labor and management. There is bound to be continued difference of opinion as to the importance of this factor, particularly since it is not subject to proof. Representatives of organized railway labor and the present management of the Canadian National have argued that the spur of fair competitive rivalry is essential for the best results. The officers of the Canadian Pacific are equally convinced that an urge for net profit is a better stimulus for managerial efficiency than a spirit of rivalry. They hold that the application of sound principles of organization and administration will maintain the present standards of efficient operation. All that one can say with respect to this controversy is that if the management of the unified properties is of a high calibre and if fair and reasonable relations are maintained with organized labor, there should be no falling off in efficiency. In any event, the waste from competitive duplication of service is so great under the prevailing traffic conditions in Canada that the argument as to the economy and efficiency of competitive service has largely lost its validity.

GENERAL EXPENSES

General expenses were determined by applying Canadian Pacific cost performance on a mileage basis to the reduced mileage of the combined properties and deducting 20 per cent

on account of unification. In analyzing the estimated saving ($4,289,000) it is important to note that the resultant general expenses (less insurance and pensions) of the unified properties would be slightly less than the general expenses of the Canadian National alone for the year 1930, although they would be about 76 per cent greater than the general expenses of the Canadian Pacific for 1930. The officers of the Canadian Pacific believe that they have estimated the general expenses of the unified properties on a liberal basis in view of the many fields in which there is a complete duplication of effort. Yet there are several reasons for doubting that the savings in this category would be as large as they have been estimated. The best index of general expenses is that of their ratio to gross railway operating revenues, and it appears that the estimated general expenses (less insurance and pensions) of the unified properties would amount to $1.49 per $100 of gross railway operating revenues on the basis of 1930 operations. This may be compared with $1.95 for the Canadian Pacific and $2.85 for the Canadian National in 1930. While it seems reasonable to assume that the Canadian Pacific would be able to duplicate its own unit cost performance on the combined properties, it is doubtful whether it is proper to make a deduction of 20 per cent from such unit costs. Undoubtedly many duplicate positions could be abolished after unification, but certain new problems of administration and accounting would tend to offset much of the savings from unification (as contrasted with the savings that would arise from the private administration of the properties). The partnership of the Government in the unified enterprise and the expansion of the powers of the Board of Railway Commissioners would inevitably give rise to administrative and accounting costs, which must be taken into consideration, even though it is difficult to estimate their importance in the aggregate. If, as a result of these factors, the Canadian Pacific were only able to equal its own cost performance on the combined properties, the realized economies would be reduced by approximately $2,000,000.

SAVINGS THROUGH REDUCTION IN CAPITAL INVESTMENT

The estimate that there would be an annual saving of $1,700,000 on the value of the materials salvaged from abandoned tracks seems reasonable. It represents interest at 5 per cent on a salvage value of $34,000,000. Under normal conditions and over a period of five or six years there should be little difficulty in realizing this amount from the abandonment of 5,000 miles of track.

The estimated reduction in the future equipment needs of the unified properties as compared with the requirements of the two systems under separate operation was based on the estimated decrease in the number of locomotive and car miles as shown in the following tabulation:

Class	*Statistical unit*	*% Reduction*	*Released Units*	*Estimated Unit Values*
Locomotives	Locomotive miles	12.2	637	$59,196
Freight train cars	Freight train car miles	3.3	7,247	$ 1,174
Passenger train cars	Passenger train car miles	14.9	1,037	$40,710
Work Equipment	Miles of road	12.2	1,786	$ 2,500

The item "released units" refers to the number of units which would not have to be replaced and represents a cash saving to accrue in the future. The estimated unit values which were applied produced a total of $93,000,000 for the released units. Interest at 5 per cent on this sum is $4,650,000, the amount of the estimated annual saving.

No allowance appears to have been made for the probable capital cost of unification of terminals, track connections, and so forth. However, it was considered certain that the capital expenditures of the combined properties, including the cost of unification, would be much less than the capital expenditures of the two roads if operated separately, and that the savings would be more than enough to take care of any reparation payments which might arise in connection with track abandonment. There would be more than sufficient material released from the various abandonments to take care of necessary alterations in track connections and terminals. Certain

labor costs would be involved, which, however, would tend to ease the displacement of labor as a result of unification.

CONCLUSIONS

The foregoing analysis of the detailed savings appears to justify the conclusion that they were determined, for the most part, on a reasonable and conservative basis. Perhaps the most significant feature of the economies is the fact that they would arise from two sources, viz., (1) the elimination of unnecessary duplication of service and facilities as a result of consolidating the operations of the two systems, (2) the expectation that a unified management under private control could at least equal the standards of economy and efficiency on the combined properties, which the Canadian Pacific management has consistently been able to achieve over a long period of years on its property. These sources of economies are highly important because they serve to emphasize the reasons why the plan under discussion is the only practicable way of securing large economies. As stated earlier, the two railways parallel each other from the Pacific to the Atlantic, they meet in competition at every important town or city in Canada, and their freight and passenger trains, frequently lightly loaded, thunder alongside one another in a determined effort to reach the same place at precisely the same time. If there were enough traffic available most of the time so that competitive trains would not be running partly empty there would not be the same pressing need for consolidated operations.[43] For it is not contended that there is any magic method whereby unification of railways under any circumstances would produce huge economies. But it is claimed that unification is the only practicable way of eliminating waste transportation effort under the conditions which exist in Canada.

The suggestion of the Canadian National that all practicable economies can be achieved, simply by co-operative measures and by each railway economizing "in every possible

[43] Although even with greater density, large economies would result from the use of the most favorable routes of the combined properties.

way," is entirely erroneous. Such methods will not produce the same results as unification because they can not remove the principal source of waste, namely, duplicate effort. The vast difference, under the conditions that prevail in Canada, between the possibilities of the alternative proposals is simple to demonstrate. Under unification, the supervisory officers of the combined properties could proceed at once to reorganize the operations of the system so as to eliminate unnecessary duplications. Under co-operation, the officers of the two railways have to reach agreement about each and everything that is done, and endeavour to deal fairly with a ramification of individual interests that almost passes belief. Since many of these projects can adversely affect the exclusive interests of one company or the other to an extent many times greater than the net economy to be secured, it will be recognized that in reaching agreement many difficulties have to be faced. Each cooperative project entails a very extensive study and protracted negotiations before ultimate approval by the executives of the two companies. With a common treasury, the conflicting interests would disappear and there would remain only common interests. As will be seen shortly there is no better way of realizing the difficulties in the way of achieving co-operative savings than by studying the experience of the two railways since 1932 in their efforts to co-operate.

There is also the argument that the savings from unification would not be as large as indicated because future policies and practices of the two railways, particularly those of the Canadian National, will not be as extravagant as they were in 1930, which was the year used in the foregoing calculations. In computing the savings of unification, the year 1930 was chosen by the Canadian Pacific because it was the latest year for which complete operating results were available at the time the Royal Commission asked for the submission. As a matter of fact 1930 was a very suitable year on which to base a study of that kind, for railway earnings in 1930 were less than the annual average from 1923-1931, and they also were about midway between the earnings of the extreme years of prosperity and

depression, 1928 and 1933. The reduction in revenues and expenses of the two railways in 1933 as compared with 1930 was as follows:

Canadian National	*1933*	*1930*	*Decrease 1933 from 1930*	*Per Cent Decrease*
Operating Revenues	$148,520,000	$250,968,000	$102,448,000	40.8
Operating Expenses	142,813,000	228,802,000	85,989,000	37.6
Includes Central Vermont for 12 months 1930 and 1933.				
Canadian Pacific				
Operating Revenues	$120,931,000	$196,212,000	$ 75,281,000	38.4
Operating Expenses	94,871,000	153,751,000	58,880,000	38.3

In the case of the Canadian Pacific, there was nothing extraordinary in its ability to reduce expenses commensurately with reduced revenues. For a great many years its expenses have been gauged with reference to its revenues in accordance with sound administrative practice. That the Canadian National was able to curtail its expenses satisfactorily when the exigency of the situation required it, was simply evidence of the fact that the Government demanded economies and the railway management was quite capable of carrying out such a policy. It may well be that some of the economies, particularly those achieved by eliminating excessive passenger train services, and redundant supervisory forces, will continue when traffic revives, and as a result the operating ratio of the Canadian National may decline somewhat as compared with past performance under better traffic conditions. But this desirable result will depend entirely on the determination of the Board of Trustees to administer the Canadian National with the same regard for economical operation as prevails in an efficient commercial enterprise. Those who are idealistically inclined may be able to convince themselves that there will be no repetition of the extravagances of the past, and that there will be no lessening of the Board's insistence on economical operation when there is a return to better times. Yet, though there have been some changes, under the legislation of 1933, in the administrative control of the Canadian National and in the relations of the System to the Government, there has been no change in the financial dependence of the Canadian National

on the Dominion Government. Consequently there is little real assurance that the same influences which countenanced and even promoted extravagance in the past operations of the System will not again prevail, even though gradually and perhaps imperceptibly to the casual observer.

Economies achieved through the elimination of former extravagances (which may or may not be lasting), should not be confused with the temporary reduction of expenses in response to reduced revenues. Maintenance standards which are satisfactory temporarily under reduced traffic conditions must necessarily be raised again as traffic increases, and by the same token passenger and freight train schedules which have been eliminated because the traffic dried up, will again be reinstated, possibly with some exceptions. On the other hand, the savings from unification would be permanent in character, in that they would arise principally from the elimination of duplicate effort. Viewed in this light, they bear little or no relation to the forced economies of the two companies during the depression. To be sure, if earnings were to continue at the low level of 1933, the savings from unification would be materially lower than those estimated on the basis of 1930 earnings and expenses, but it is equally true that higher earnings than those of 1930 would tend to yield larger savings.

Assurance as to the economies of unification is but a part of the problem which faces the Canadian people. They also should be properly convinced (1) that there are adequate safeguards against the abuse of railway monopoly power and (2) that a contract can be drawn up providing for a fair distribution of the net earnings of the consolidated system. Moreover, the fears of railway labor, that their interests would be sacrificed, must be met openly and fairly. Finally, in fairness to the supervisory force of the Canadian National there should be assurances that there would be no unfair discrimination in the selection of officers for the unified properties.

The safeguards against the abuse of monopoly power have already been discussed and need only be summarized. If there were abuses they would manifest themselves either with respect

to service or rates. In the first place, ordinary observation is sufficient to demonstrate the fact that the railways no longer enjoy a monopoly of the transportation field. In recent years they have been beset by competition from the motor vehicle and the waterway, and the influence of the aeroplane is but beginning. Secondly, there would be the Board of Railway Commissioners, which should be given complete power to regulate service and rates. This would require a complete overhauling of the Railway Act, which is deficient in many respects. The Board of Railway Commissioners should be reconstituted as a regulatory body, independent of political influence or interference, with the right of appeal from its decisions to the Supreme Court of Canada on points of law. The Board also should have adequate powers to prescribe accounting rules and regulations, and it should have broad powers of enquiry into any and all matters affecting the interests of the Government or the public in the administration of the unified properties. There should be an independent audit of the accounts of the railway under the direction of the Board. Control over new railway construction should be transferred from Parliament to the new Board of Railway Commissioners, to the end that regulation be centralized and sufficiently all-embracing to meet such problems as might develop. Finally, in addition to the safeguards provided by the competition of other forms of transport and by adequate regulation, there would be a source of protection in the fact that the Canadian Pacific would be but a partner of the Government in the unified enterprise; in its administration of the combined system it could not afford to antagonize the shipping and travelling public.

The form of contract that might be drawn up to effect a unification of the two properties would naturally have to be worked out by negotiation between the Government and the Canadian Pacific. Mr. Beatty's suggestion was framed in general terms, and was to the effect that the two properties be administered by one management under private control, in the joint interest of their respective owners. The duty of safeguarding the public interest would be entrusted to the Board

of Railway Commissioners, reorganized as an independent regulatory body with widest possible powers. The exact form of the arrangement would depend on negotiation, and since there would be a division of net earnings between the Government and the Canadian Pacific, expert legal advice would be required to insure that the plan would not conflict with existing rights of security holders. One possibility that appears to offer the least objections, would be the creation of a new corporation which would enter into a leasing agreement with the Government and the Canadian Pacific for the joint working of their respective properties. In the negotiations between the Government and the Canadian Pacific, every effort should be made to ensure the private administration of the combined properties, although, to be sure, it is inevitable that the Government will demand some representation on the Board of Directors of the new company. These and other questions relating to the fair treatment of the workers and officers of both railways in the period of reorganization, would be subjects for negotiation. After agreement thereon, the principles and measures agreed upon, for the protection of the various interests involved, would be covered by appropriate legislation.

The problem of staff reduction is one which must be worked out carefully in advance, for nearly one-half of the estimated economies will be represented by a saving in wages and salaries. On many occasions Mr. Beatty has given assurances that provision will be made to protect the interests of employees.[44] In

[44]In his Vancouver address on September 4, 1934, Mr. Beatty discussed the labor aspect of unification as follows: "The most reasonable suggestion so far made in contravention of my suggestion of railway unification is that it might involve the loss of employment to a large number of workers. In the present condition of this country, with only too many of our citizens already idle and supported at the public expense, it is not unreasonable that good citizens might dread anything that would add to the volume of unemployment. If the necessary changes are made gradually, wisely and considerately, as they would be, it would be found that the normal turn-over of labour would take up the slack and that under the unified system employees would find that regularity of employment which, under present conditions, is denied to them. The natural and automatic turn-over of labour in this country is sufficient to justify complete expectation that unification of the railway systems would not make it necessary to add to the volume of unemployment. Each year many men die, retire, or change their occupation; and a careful survey of the situation has convinced me that we have nothing to fear on the grounds of loss of employment due to unification for the purpose of administration of the railway systems."

one published statement in August 1934, he said that the labor aspect could be met without hardship to employees, "who certainly do not deserve to be penalized," although he admitted that the measures he had in mind would postpone for a short time the complete advantages of unification. Part of the problem would be solved, he pointed out, by the normal turnover of labor which is about five per cent per annum, and the remainder of the problem by "a more general and generous utilization of our pension funds." In the writer's estimation it is probable that there would be a series of measures to meet different kinds of cases. Older employees, no longer needed, might be pensioned at half-pay until they would be entitled to their regular pensions. Younger employees might be paid a dismissal wage for a number of months until they might reasonably be expected to find other employment. From a social point of view, every consideration should be given to the human factor, even though the effect would be to postpone the time when the full economy of $75,000,000 might be achieved. Finally, after unification there should be a contractual pension plan for the employees of the combined properties on a contributory basis. If it is approached in the proper spirit, there is no reason why the labor aspect of unification can not be met with justice to the employees and with advantage to the taxpayers of Canada and the stockholders of the Canadian Pacific.

CO-OPERATION IN THEORY AND PRACTICE

Both the Canadian National and the Canadian Pacific were asked by the Royal Commission to submit estimates of the possible economies from co-operative arrangements. There was a great difference between the estimates of the two railways. The co-operative plans of the Canadian National called for the abandonment of 2,272 miles of track about equally divided between the two systems, for joint use of certain terminals, pooling of telegraph and passenger services between competitive points, and the interchange of traffic and equipment. It estimated that this program would accomplish

a total saving of $30,000,000 annually. The calculations of the Canadian Pacific represented the savings from the establishment of twenty-two new joint trackage sections involving the abandonment of 1,582 miles of track, and from the joint use of terminals at sixty-seven places. If to this were added savings from the pooling of competitive passenger services, and the consolidation of express and telegraph services, a total economy of approximately $11,000,000 would be indicated. In comparing the widely divergent estimates of the two railways, it is informative to note that after a year and a half of effort, i.e., from November 1932 to the summer of 1934, the combined annual savings for both companies from co-operative measures, amounted only to $1,250,000.

In November 1932, the managements of the Canadian National and the Canadian Pacific organized a joint executive committee, consisting of the executive head and two directors of each railway, for the purpose of effecting co-operative economies. A joint committee of six technical officers was created to investigate the details of specific proposals relating to railway activities. Other special committees were appointed to deal with co-operative measures in regard to express and telegraph operations. In April 1933, a partial pooling of passenger train services between Montreal and Toronto, and Ottawa and Toronto was instituted. In March 1934, further pooling of passenger services between Montreal and Toronto, and Montreal and Quebec became effective. Other economies have resulted from arrangements for joint operations such as switching, car cleaning, and freight shed operation at a number of points where duplication existed. Many similar projects are under study but progress is slow, as is indicated by the relatively small number of co-operative measures in effect after two years of effort.

Undoubtedly, as Mr. Beatty has pointed out, the difficulties of agreeing upon mutually satisfactory co-operative arrangements constitute the chief argument against co-operation as the solution of the Canadian railway problem. Others are also beginning to recognize the shortcomings of co-operative com-

petition. In a public address in December 1934, the Honorable W. D. Euler, an outspoken champion of public ownership, characterized the report of the Duff Commission as barren and impracticable, pointing out that compulsory co-operation, as recommended by that body, is a contradiction in terms. He advocated joint operation of the two railways under a plan which appears to differ from Mr. Beatty's chiefly with respect to the participation of the Government in the administration of the joint properties. Most of the co-operative savings by the end of 1934 have been secured from the three passenger traffic pools to which reference has been made. The policy which has been followed has been to proceed step by step with limited pools between specified points such as Montreal and Toronto, with the view of extending the pooling principle as rapidly as agreements covering the detailed application of further pooling can be consummated. The advantages of this method of approach as contrasted with initiating an all-embracing pool covering the whole passenger train service of both railways are as follows:

(1) The problems involved are more concrete and, therefore, more easily dealt with;

(2) Each pooling arrangement can be consummated with a reasonable degree of certainty as to the benefits gained and the burden assumed;

(3) Burden and advantage to each company can be balanced step by step. Thus if it appears that one railway is conceded an advantage in one pool, it would be proper for it to grant concessions in some other co-operative measure; and

(4) The experience gained in the earlier pools will serve as a guide for future agreements.

One of the difficulties in the way of consummating further passenger pooling beyond that already in effect is the terminal problem at such points as Montreal, North Bay, Sudbury, Fort William, Port Arthur, Winnipeg, Saskatoon, Moose Jaw, Calgary, Edmonton and Vancouver on the transcontinental service and Hamilton, London and Windsor on the Montreal-Chicago

service. At each of these points each company has its own station facilities. Yet for convenience to the public and maximum economy, common terminals are essential for pooled services. Arrangements could be made in most cases for the use of the station most suitable, if it were not for the fact that at most of the key points, e.g., Montreal, Winnipeg and Vancouver, the Canadian Pacific has the superior station facilities. The situation at Montreal, where the Canadian National has opposed the use of the Canadian Pacific Windsor Station as a union terminal, illustrates the difficulties which arise from the fact that each carrier has its own prestige and separate interests to consider. The result is that there is a constant sparring for advantage, and a tendency for one railway to oppose the most economical co-operative arrangement in a given instance because of the fear that it would lose more indirectly in other phases of its business than it would gain from that particular co-operative measure.

With the results achieved from two years of attempted co-operation as a guide, the Canadian people should not be particularly sanguine as to the possibilities of obtaining large economies by such measures. Over a longer period of time further limited savings may be obtained, but it is abundantly clear that there is a vast difference between the economies possible under unification and those possible under co-operation. It is most significant that even the Canadian National, which has consistently opposed unification, estimated the savings therefrom at $56,400,000. To be sure, it qualified its statement of economies on the hypothetical ground that with the elimination of railway rivalry, the incentives for continued efficiency would be lessened to such a degree as to wipe out a portion, if not all, of the savings indicated. Yet, as already has been shown, there are many reasons for denying the validity of this assumption in the case of the plan under discussion. It is to be hoped that those who are at all familiar with the continuous operating record of the Canadian Pacific will not be misled by such a weak argument against its proposal for unification.

Under the Canadian National-Canadian Pacific Act of 1933, the policy of co-operation is being given a trial. The new policy should serve to rationalize railway competition to a certain extent, and as such it constitutes an improvement over the reckless rivalry of the past. Yet the indications are that it will yield little financial relief for the railways and the Dominion Treasury. Possibly when this has been fully demonstrated after a fair trial, Canada will be ready to accept unified management, both as a means of rectifying some of the mistaken policies of the past and of putting its railways on a paying basis.

CHAPTER XIV

CONCLUSIONS

THE purposes of this study have been (1) to interpret the forces which resulted in the government ownership of an important net-work of railway lines, (2) to analyze the financial and operating results of the government railway system, (3) to discuss the outstanding problems that have developed from the Government's experiment and (4) to set forth a logical railway policy for the future. The principal findings will now be summarized under these separate headings.

1. THE FORCES LEADING TO RAILWAY NATIONALIZATION

With the rapid expansion of population and trade and the resultant buoyancy of economic conditions in the decade 1903-1912, there was an unparalleled activity in Canadian railway development. On account of the sparseness of the population, the great distances to be overcome and the necessity of building ahead of settlement, a policy of governmental aid was essential to attract the necessary capital to build the new railways. However, the Government's method of aiding railway development was defective and it ultimately resulted in the government ownership of railways on a large scale.

The method of aiding new construction was essentially unsound. The principal form of aid to the railways which were built after 1903 was the guaranteed bond. From the standpoint of the Government, this type of aid had the advantage of requiring a minimum of current outlay of government funds; and if the hopes of the promoters were realized, the Government would not be called upon to "make good" its

guarantees. But if the railway ventures failed, the ultimate cost to the Government of this form of aid would be vastly greater than the cost of an outright subsidy. It is now quite obvious that a policy of outright subsidies to aid new construction would have had many advantages over the policy of bond guarantees. The Government would have known exactly the amount of its contribution in aid of construction. Moreover, the risk of failure would have been borne by the private investor which would no doubt have provided a safeguard against reckless investment.

It may be that the policy of bond guarantees would not have had such serious consequences, if the Government had provided for adequate control over new construction. The task of controlling new construction should have been made the responsibility of an independent regulatory commission in order to free it from the political hazards of sectional influence and "log rolling" in Parliament. In fact, however, there was no effective curb against excessive or unwise construction. As a result the country did not obtain the full benefit which might have resulted from a sound policy of government aid for a carefully regulated program of construction.

A third defect in the Government's railway policy was that investors in the new railways' securities came to regard themselves as partners of the Government with practically a guarantee against loss. That the Government did not take adequate steps to prevent such an interpretation being placed upon its relationship to the new enterprises was shown by the situation which developed in 1916. At that time, with the Canadian Northern and the Grand Trunk Pacific practically bankrupt, the Government felt that it could not allow them to go into receivership, which was the only sound solution of their difficulties, because even the holders of their unguaranteed securities had come to believe that they were protected against loss. But for this, the Government could have taken its loss on the aid granted up to that time, put the properties through re-

ceivership, supplied them with working capital and thereby avoided the necessity of government ownership of a large network of railways.

2. THE FINANCIAL AND OPERATING RESULTS OF THE CANADIAN NATIONAL

Sixteen years have elapsed since the Dominion Government acquired the Canadian Northern and thereby embarked on its policy of railway nationalization. The Government found support for its policy entirely in the recommendations of the majority of the Railway Inquiry Commission of 1916. No opportunity was given the public to vote upon the proposal. However, under the circumstances existing at the time, it is reasonable to assume that the Government's railway policy had the tacit approval of the majority of the people. At first, the public complacently accepted the huge income deficits of the Canadian National as unavoidable, but it did not foresee the continued recurrence of these deficits and the seriousness of the situation which culminated in the appointment of the Royal Commission on Transportation in 1931.

Looking back over the period of government ownership of the Canadian National Railways, it appears that most of the fears of Mr. A. H. Smith, the dissenting Royal Commissioner in 1916, regarding his colleagues' plan, have been substantiated. He did not believe that it would be possible to avoid the danger that the government system would become a permanent burden, adding very largely to government expenses. This, in fact, has been the result. The amount of money which the Government and in the last analysis, the taxpayer, has put into the Canadian National is a huge sum, the greater part of which will never be recovered. Reference to the Appendix to Chapter X will show the tremendous cash outlay of the Canadian Government with respect to the railways comprising the Canadian National since government ownership. For convenience the facts are set forth herewith:

Expenditures by Dominion Government on its Railway System Since Government Ownership

	Loans	Other Payments	Total
Canadian Northern Railway			
From date of acquisition			
Sept. 30, 1917, to March 31, 1923	$281,515,118	$ 11,039,443	$292,554,561
Grand Trunk Railway			
From date of acquisition			
May 1, 1920, to March 31, 1923	107,433,649	....	107,433,649
Grand Trunk Pacific Railway			
From date of receivership			
March 9, 1919, to March 31, 1923	42,367,362	....	42,367,362
Canadian National Railways			
Cash received April 1, 1923 to December 31, 1931	92,490,903	26,918,701*	119,409,604
Payments 1932 and 1933	22,418,405	119,794,386**	142,212,791
Total since acquisition	$546,225,437	$157,752,530	$703,977,967
Accrued Interest unpaid since acquisition			417,390,941
			$1,121,368,908

*Includes $26,081,222 losses on Eastern Lines.
**Includes $14,107,905 losses on Eastern Lines, and $105,686,481 cash deficits of balance of System.

The Dominion Government has spent nearly $704,000,000 on the Canadian National since the various properties were acquired. These funds were advanced for both capital expenditures and deficits and they do not include unpaid accrued interest amounting to $417,390,941 since acquisition. In addition there is the liability of the Government with respect to its guarantee of securities of the Canadian National or its component parts. On December 31, 1933, the Canadian National had securities outstanding in the hands of the public to the amount of $1,255,302,000, of which $962,-993,000 bore the guarantee of the Dominion Government. The annual interest on the larger sum amounts to $56,465,427, whereas the average annual net earnings of the Canadian National available for interest in the eleven years, 1923-1933, amounted to $19,928,107. Even on the assumption that the Canadian National could succeed in doubling its average annual

net income of the past eleven years, it would still fall short of meeting its fixed charges (due the public) by $16,000,000 or more annually. The conclusion inevitably follows that unless drastic measures are taken for a more economical operation of its railways, the Government can not expect to be relieved of the burden of meeting continued deficits. Nor can it hope to secure a return on its large investment in the System. Moreover, since a large proportion of the Government's outlay for interest charges on railway account must be met from fresh borrowings, resulting in ever increasing pyramiding due to compounding of interest, the situation becomes yearly more acute.

The conclusions regarding the operating record of the Canadian National have already been presented in Chapter VIII, where it was shown that the disparity between the unit operating costs of the Canadian National and the Canadian Pacific was greater than could fairly be explained by differences in their operating characteristics. Apparently there was not the same demand for an economic balance between income and expenses as there would be in the operation of a private property. Another explanation of the high average operating ratio of the Canadian National was found in the wastefulness of attempting to provide a higher standard of competitive service on the Canadian National than the traffic could support. It is one of the anomalies of the Canadian railway situation that this policy, which was so costly, has created a strong popular following for the Canadian National. In fact one of the saving features in the record of the Canadian National and in the railway situation as a whole, is that the patrons of both railways enjoy prompt and efficient service. There is no denying that the management and staff of the Canadian National deserve credit for creating a smoothly functioning organization out of the disjointed properties which were combined to form the system. Yet if the standards of service are to be preserved, and if the burden of cost on the taxpayer from the deficits of the Canadian National is to be reduced, there must be a cessation of competitive railway operation in Canada. This is the

most important lesson that can be derived from the experience of the past fifteen years.

3. OUTSTANDING PROBLEMS IN RELATION TO GOVERNMENT OWNERSHIP

When the majority of the Drayton-Acworth Commission recommended government ownership in 1916 as a solution of Canada's railway problem, they stressed the importance (1) of safeguarding the administration of the government railway system from political influence and (2) of protecting the Canadian Pacific from unfair competition with respect to railway rates. By placing the Canadian National under the jurisdiction of the Board of Railway Commissioners the problem of rate competition was satisfactorily met, but the problem of the administration of a government railway system in a democratic country was more difficult to solve. The excessive capital expenditures from 1923 to 1931 are sufficient evidence of the fact that there was not a business-like administration of the Canadian National during that period. There is no doubt that the Government made a mistake in not following the recommendation of the Drayton-Acworth report that there should be a small board of thoroughly capable trustees, having a certain permanency of tenure, to administer the government properties.

Although the Canadian Pacific was safeguarded against unfair rate competition, it was not protected against unfair rivalry in other respects, particularly relating to service and capital expenditures. Mr. A. H. Smith, the dissenting commissioner in 1916, stressed this danger. He pointed to the fact that the Drayton-Acworth plan left the Canadian Pacific out of the government system and he said that this was unfair "to the investors whose property is to be subjected to government competition." Detailed analysis of the character of the competition between the Canadian National and the Canadian Pacific shows that it would have been in the country's interest to have heeded the commissioner's warning.

Various attempts have been made to solve the railway

problem, but on each occasion Canada has taken a wrong turning. In 1917, Lord Shaughnessy, then President of the Canadian Pacific Railway, proposed that the Canadian Pacific be allowed to operate the Canadian Northern, the Grand Trunk Pacific and the National Transcontinental on behalf of the Government. Between 1918 and 1921, the losses of the Canadian National Railways exceeded $50,000,000 yearly, and in 1921 Lord Shaughnessy again urged the Government to accept his plan for combining the operations of the Canadian Pacific and the railways which the Government had already acquired. If his proposal had been accepted there can be no doubt that the later loss of hundreds of millions of dollars would have been avoided. In 1925 a special Committee of the Canadian Senate made an extended study of the railway problem, and reported in favor of merging the Canadian National and the Canadian Pacific for purposes of administration and operation. Again the opportunity to solve the railway problem was not taken, and the next few years witnessed one of the most excessive and uneconomic periods of railway rivalry in the country's history.

FUTURE POLICY

The Duff Commission report was disappointing in its failure to recommend a practicable method of achieving the large railway economies which are required for adequate financial relief. If co-operative measures had been put into effect ten years ago, it might not now be necessary to resort to the more drastic proposal of unified railway management. But in the meantime there has been a huge increase in the fixed investment of both railways and the financial burden on the Dominion Treasury has been increased by several years of depression. For these reasons the problem of relieving the burden of cost on the taxpayer from the deficits of the Canadian National and of preserving the financial standing of the Canadian Pacific is now of paramount importance. Editorials in the leading newspapers and in the financial journals are beginning to stress the fact that this is one of Canada's greatest problems. It will be re-

called that a serious note of warning to the people of Canada was given in the report of the Duff Commission wherein it was stressed that "unless the country is prepared to adopt . . . . effective measures to secure the efficient and economical working of both railway systems . . . . then the only course that would be left would be either to effect savings in national expenditure in other directions, or to add still further to the burdens under which the industries are suffering by the imposition of yet further taxation. Failing the adoption of one or other of these courses . . . . the very stability of the nation's finances, and the financial credit of the Canadian Pacific Railway will be threatened, with serious consequences to the people of Canada and to those who have invested their savings in that railway."

As it becomes generally evident that adequate savings cannot be achieved by co-operation, it may be expected that the demand for a more effective solution of the railway problem will grow. In the writer's opinion, unified management of the two systems is a means whereby annual economies of fifty million dollars or more are possible. It is a logical solution of the railway problem, because it is the only proposal which offers the promise of adequate economies and because it would provide a sound basis for the future development of railway transportation in Canada.

CANADIAN NATIONAL RAILWAY SYSTEM

	1919	1920	1921	1922	1923
Operating Revenues....	$198,931,155	$236,709,116	$228,653,260	$234,059,025	$256,961,590
Operating Expenses	213,154,868	271,241,819	240,196,838	231,172,313	235,838,046
Net Operating Revenue	$ *14,223,713*	$ *34,532,703*	$ *11,543,578*	$ 2,886,712	$ 21,123,544
Net of Taxes and Income Credits and Debits—Net Dr..................	$ 2,938,094	543,975	2,880,215	1,281,609	7,621,896
Net Income Surplus or *Deficit* before Interest..	$ *17,161,807*	$ *35,076,678*	$ *14,423,793*	$ 1,605,103	$ 13,501,648
Interest due Public on Long Term Debt.......	28,599,687	31,055,318	34,476,014	34,652,324	35,041,380
Net Income Surplus or *Deficit* before Interest on Government Loans	$ *45,761,494*	$ *66,131,996*	$ *48,899,807*	$ *33,047,221*	$ *21,539,732*
Interest on Dominion Government Loans.....	9,596,581	14,346,832	20,966,782	24,912,876	30,157,943
Net Income *Deficit*....	$ *55,358,075*	$ *80,478,828*	$ *69,866,589*	$ *57,960,097*	$ *51,697,675*
	1924	**1925**	**1926**	**1927**	**1928**
Operating Revenues....	$239,596,670	$249,411,884	$270,982,223	$274,879,118	$304,591,269
Operating Expenses	221,622,049	216,290,434	223,561,262	233,305,267	249,731,695
Net Operating Revenue	$ 17,974,621	$ 33,121,450	$ 47,420,961	$ 41,573,851	$ 54,859,574
Net of Taxes and Income Credits and Debits—Net Dr..................	3,202,293	2,677,597	5,834,719	5,248,432	10,409,794
Net Income Surplus or *Deficit* before Interest..	$ 14,772,328	$ 30,443,853	$ 41,586,242	$ 36,325,419	$ 44,449,780
Interest due Public on Long Term Debt.......	38,361,704	40,438,235	39,197,233	40,526,097	41,810,880
Net Income Surplus or *Deficit* before Interest on Government Loans	$ *23,589,376*	$ *9,994,382*	$ 2,389,009	$ *4,200,678*	$ 2,638,900
Interest on Dominion Government Loans.....	31,271,043	31,450,382	32,090,454	32,505,234	32,507,337
Net Income *Deficit*....	$ *54,860,419*	$ *41,444,764*	$ *29,701,445*	$ *36,705,912*	$ *29,868,437*

NOTE: Includes Canadian Government Rys., Canadian Northern, Grand Trunk Pacific and Grand Trunk Ry. Systems from 1919; Central Vermont Ry. included from February 1st, 1930.
Net income or deficit from commercial telegraphs and express operations included in Income Credits and Debits 1919—1922; gross earnings and expenses included in Operating Revenues and Expenses 1923—1933.

INCOME ACCOUNT YEARS 1919—1933

	1929	1930	1931	1932	1933
Operating Revenues....	$290,496,980	$250,368,998	$200,505,162	$161,103,594	$148,519,742
Operating Expenses	248,632,275	228,288,023	199,312,995	155,208,161	142,812,559
Net Operating Revenue	$ 41,864,705	$ 22,080,975	$ 1,192,167	$ 5,895,433	$ 5,707,183
Net of Taxes and Income Credits and Debits—Net Dr..................	9,769,430	6,350,749	6,474,817	9,937,073	9,259,469
Net Income Surplus or *Deficit* before Interest..	$ 32,095,275	$ 15,730,226	*$ 5,282,650*	*$ 4,041,640*	*$ 3,552,286*
Interest due Public on Long Term Debt.......	45,503,980	51,316,121	55,587,145	56,965,279	56,465,427
Net Income Surplus or *Deficit* before Interest on Government Loans	*$ 13,408,705*	*$ 35,585,895*	*$ 60,869,795*	*$ 61,006,919*	*$ 60,017,713*
Interest on Dominion Government Loans.....	32,690,545	32,693,875	32,643,624	35,525,540	36,034,141
Net Income *Deficit*....	*$ 46,099,250*	*$ 68,279,770*	*$ 93,513,419*	*$ 96,532,459*	*$ 96,051,854*

SUMMARY YEARS 1919 TO 1933 BY PERIODS

	1919 to 1922	1923 to 1931	1932 and 1933	Grand Total 1919—1933
Operating Revenues....	$ 898,352,556	$2,337,793,894	$ 309,623,336	$3,545,769,786
Operating Expenses	955,765,838	2,056,582,046	298,020,720	3,310,368,604
Net Operating Revenue	*$ 57,413,282*	$ 281,211,848	$ 11,602,616	$ 235,401,182
Net of Taxes and Income Credits and Debits—Net Dr..................	7,643,893	57,589,727	19,196,542	84,430,162
Net Income Surplus or *Deficit* before Interest..	*$ 65,057,175*	$ 223,622,121	*$ 7,593,926*	$ 150,971,020
Interest due Public on Long Term Debt.......	128,783,343	387,782,775	113,430,706	629,996,824
Net Income Surplus or *Deficit* before Interest on Government Loans	*$ 193,840,518*	*$ 164,160,654*	*$ 121,024,632*	*$ 479,025,804*
Interest on Dominion Government Loans.....	69,823,071	288,010,437	71,559,681	429,393,189
Net Income *Deficit*....	*$ 263,663,589*	*$ 452,171,091*	*$ 192,584,313*	*$ 908,418,993*

SOURCE: Years 1919—1922: Revenues and Expenses, etc., Canadian National Railways 1919—1925 (Dominion Bureau of Statistics) and Annual Report of Department of Railways and Canals, year ending March 31st, 1930, p.viii.
Years 1923—1933: Canadian National Railways 1923—1933 (Dominion Bureau of Statistics) and Annual Reports of Canadian National Railway System.

CANADIAN NATIONAL RAILWAY SYSTEM LONG TERM DEBT
YEARS 1919-1933

Dec. 31	Funded Debt due Public	Loans and Advances	Interest due Government Unpaid	Expenditure on Canadian Government Rlys.	Total Government Account	Grand Total Long Term Debt
1919	$ 801,131,444	$258,985,889	$ 15,983,992	$407,254,699	$ 682,224,580	$1,483,356,024
1920	820,550,681	373,955,590	22,788,892	411,704,909	808,449,391	1,629,000,072
1921	830,829,449	470,387,929	44,408,353	416,295,596	931,091,878	1,761,921,327
1922	804,503,144	506,945,969	69,328,803	442,062,572	1,018,337,344	1,822,840,488
1923	823,099,056	567,870,480	98,669,270	447,643,526	1,114,183,276	1,937,282,332
1924	913,913,083	560,397,958	130,157,992	451,712,485	1,142,268,435	2,056,181,518
1925	931,329,303	572,685,535	161,861,503	453,935,303	1,188,482,341	2,119,811,644
1926	925,480,244	594,300,367	193,951,356	437,412,033	1,225,663,756	2,151,144,000
1927	981,381,737	595,538,349	226,142,006	436,416,387	1,258,096,742	2,239,478,479
1928	977,889,033	614,912,221	258,024,308	417,279,953	1,290,216,482	2,268,105,515
1929	1,122,559,493	601,446,082	290,088,439	417,150,141	1,308,684,662	2,431,244,155
1930	1,168,565,863	604,406,239	322,155,902	403,443,935	1,330,006,076	2,498,571,939
1931	1,276,457,207	604,406,239	354,173,113	405,209,240	1,363,788,592	2,640,245,799
1932	1,264,517,167	695,723,207	388,930,381	405,170,073	1,489,823,661	2,754,340,828
1933	1,255,302,155	661,832,895	424,338,109	404,378,682	1,490,549,686	2,745,851,841
Increase or *Decrease*						
1922 from 1919	$ 3,371,700	$247,960,080	$ 53,344,811	$ 34,807,873	$336,112,764	$339,484,464
1931 from 1922	471,954,063	97,460,270	284,844,310	*36,853,332*	345,451,248	817,405,311
1933 from 1931	*21,155,052*	57,426,656	70,164,996	*830,558*	126,761,094	105,606,042
Total—1933 from 1919	$454,170,711	$402,847,006	$408,354,117	*$ 2,876,017*	$808,325,106	$1,262,495,817

NOTE: Includes Canadian Government Rys., Canadian Northern, Grand Trunk Pacific, and Grand Trunk Ry. Systems from 1919; Central Vermont Ry. included from February 1st, 1930. Excludes $40,189,127 cash deficits of Eastern Lines for 1927—1933, $105,686,481cash deficits of Canadian National Railways 1932—1933, a total of $145,875,608.

SOURCE: 1919—1921: Annual Report of Department of Railways and Canals, year ending March 31st, 1930, p. viii.
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